

COMMERCIAL CAR JOURNAL

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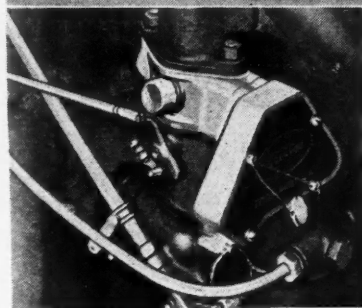
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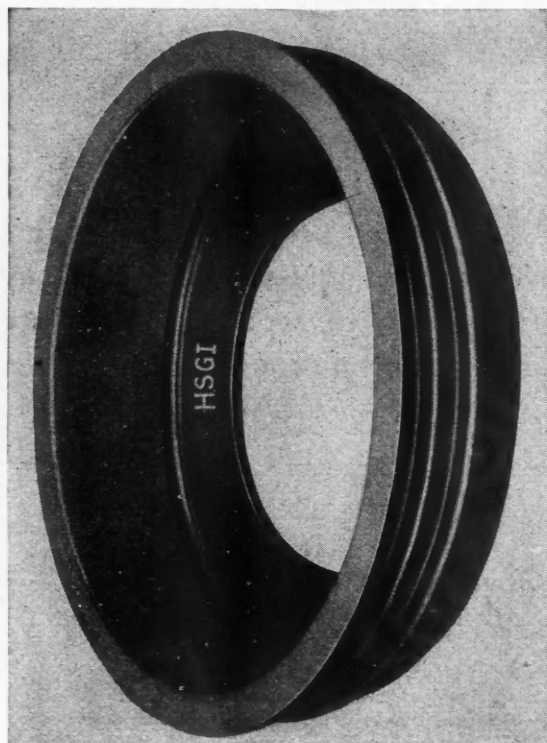
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COMMERCIAL CAR JOURNAL

PHILADELPHIA

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NOVEMBER, 1931 VOL. XLII, No. 3

THE PRESIDENT'S PAGE



By

M. J. Quechan

President
Federal Motor Truck Co.

AS extensive users of the nation's highways, motor trucks naturally contribute substantially to highway maintenance and development. This is as it should be. And users of commercial haulage equipment have always been willing and anxious to pay their just share of taxes so that continued progress in road-building and road maintenance may be assured.

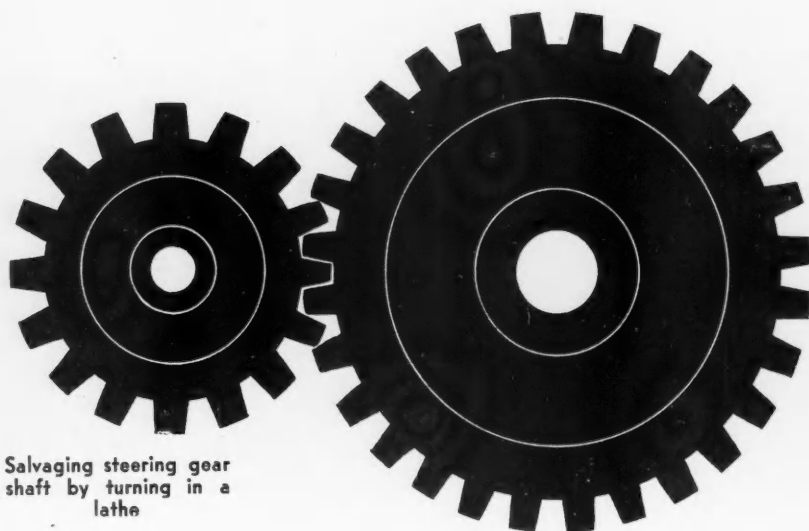
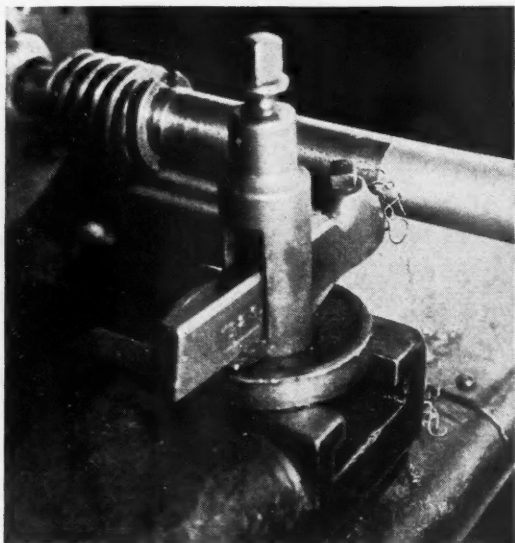
During the past few years, however, truck users, with their backs to the wall, have been desperately fighting to hold off an avalanche of vicious tax legislation which threatens to engulf them. A study of figures will convince any fair-minded person that the truck today is taxed out of all proportion to its use of the highways.

In 1930, for instance, the total expenditure for all highways, not including city streets, amounted to \$1,500,000,000. Special vehicle taxes during that time exceeded \$1,000,000,000. This sum represents 2½ times the taxes paid by railroads which in 1929 amounted to \$402,698,333. Motor trucks, which constitute 12 per cent of commercial vehicles in use, pay one-fourth of the total motor tax, or in excess of \$250,000,000 annually.

Yet, notwithstanding this staggering contribution to good roads, a consistent and vigorous effort is maintained to increase the already overpowering burden borne by the motor truck. As an example of what has been done along this line, the tax on 3-ton vehicles has been increased 160 per cent in the last seven years. The tax on vehicles of greater capacities has been raised in proportion. Every minute of the day \$493.73 in taxes is collected from owners of trucks and buses. And here is the sad part of the story—that in 1925 more than \$90,000,000 col-

TURN TO PAGE 50, PLEASE





Salvaging steering gear shaft by turning in a lathe

BIG EQUIPMENT IS

THE shop, whether owned by fleet operator, truck dealer or independent, is the keystone of successful truck operation. If it is unable to supply satisfactory and efficient service the earning ability of vehicles is jeopardized. Trucks must be kept in repair in order to make money. Service facilities must be good and in this shops must not fail. Shops determined to provide satisfactory

Drill presses do many jobs, including valve seat reaming



Equipment for the Machine Shop:

Aligning fixtures
bearing
boring

Drills
pedestal
bench
portable

Grinders
bench
pedestal
crankshaft
cylinder

Hacksaw
power

Hoists
Block & fall
floor crane
monorail

Lathes
Millers
Planers
Presses
bench
floor

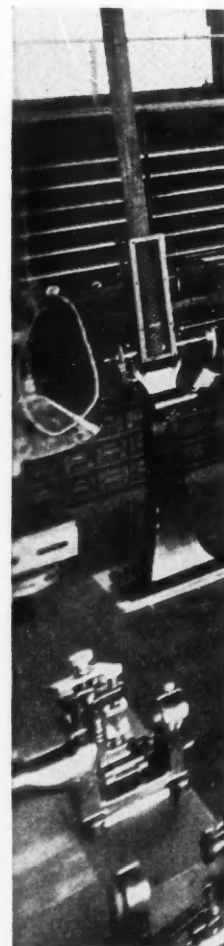
Stands
engine
transmission
running-in

Work benches
Anvil

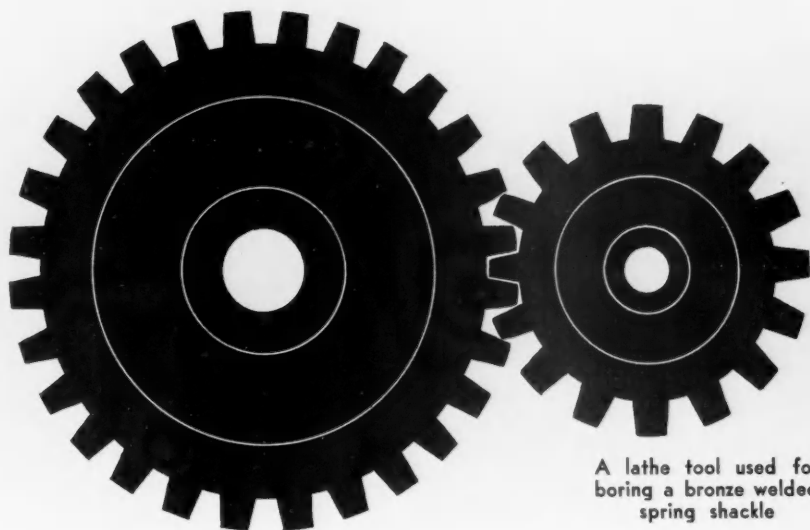
service, to release trucks as quickly as possible and to make a profit for themselves are well equipped in every department of service. The backbone of such shops is the machine shop department. It is vital if complete and speedy maintenance is to be provided.

The machine department, the big equipment section of the shop, makes the service shop self-sufficient and gives dealer shops the added advantage of acquiring a reputation of good and complete service. The fleet operator shop, of course, reaps the added advantage of low idle truck time.

Shops with machine departments have the following advantages over their less fortunate fellows: units need not be farmed out to specialists, thereby saving time and money; parts that otherwise might be cast out may be salvaged, thereby reducing parts expense; orphan parts or parts difficult to obtain may be made, thereby keeping an otherwise satis-



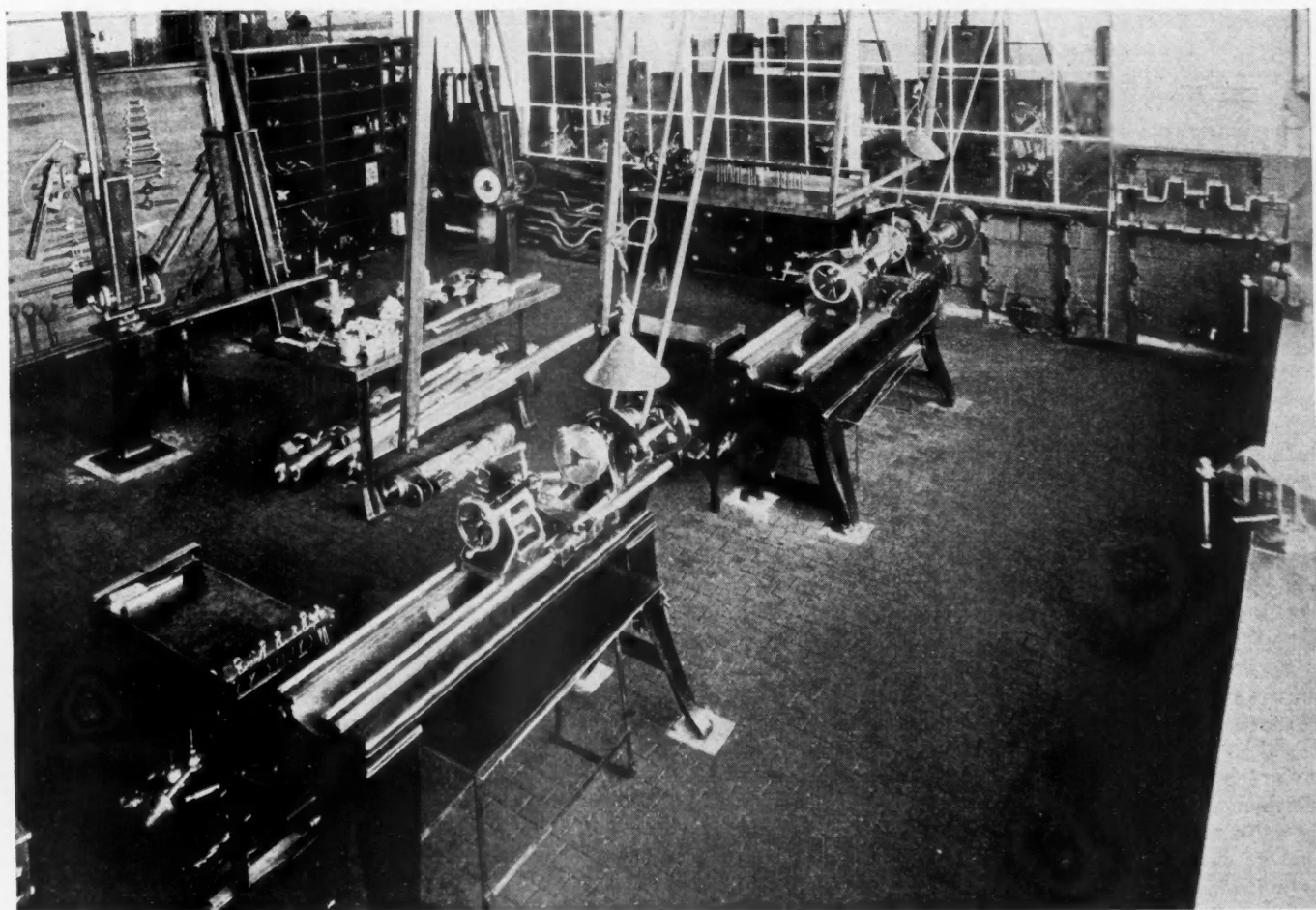
This machine shop contains a tool board, stock of reamers and similar tools, in addition to machine tools, including lathes, grinders and many bench tools



A lathe tool used for boring a bronze welded spring shackle



BACKBONE OF SHOP



factory vehicle in operation and in many cases saving considerable time; time-saving special tools as well as home-made devices and jigs for regular use can be made; all edge-tools can be kept keen and always ready for use; emergency needs stand a good chance of being fulfilled, etc. These are some of the main features of a

machine department, and while there are many more they suffice to show the important part the machine shop plays in service.

Location and layout of the machine department have a direct bearing on efficiency. Big machine equipment should be segregated and not scattered throughout the shop. The sec-

tion of the shop allotted to it should be centrally located or at some point convenient to the needs of general shop. Light also is an important consideration. The items making up the department should be arranged in such a manner as to provide ample working room, prevent confusion and permit

TURN TO PAGE 43, PLEASE

SPORTS promoters are overlooking a good show which would attract international attention and a good gate, despite the fact that it can be staged at small cost. "The World's Championship Competition for Carbon and Valve Jobs" for a purse of say, one thousand dollars—small change as sports championships go—would draw large crowds of interested spectators.

Entries for such a contest would not be lacking. On the contrary they would pour in from all quarters. What shop is lacking its champion on carbon and valve jobs? What mechanic cannot beat the record of a rival shop? Overhead valve jobs in sixty minutes? Surely.

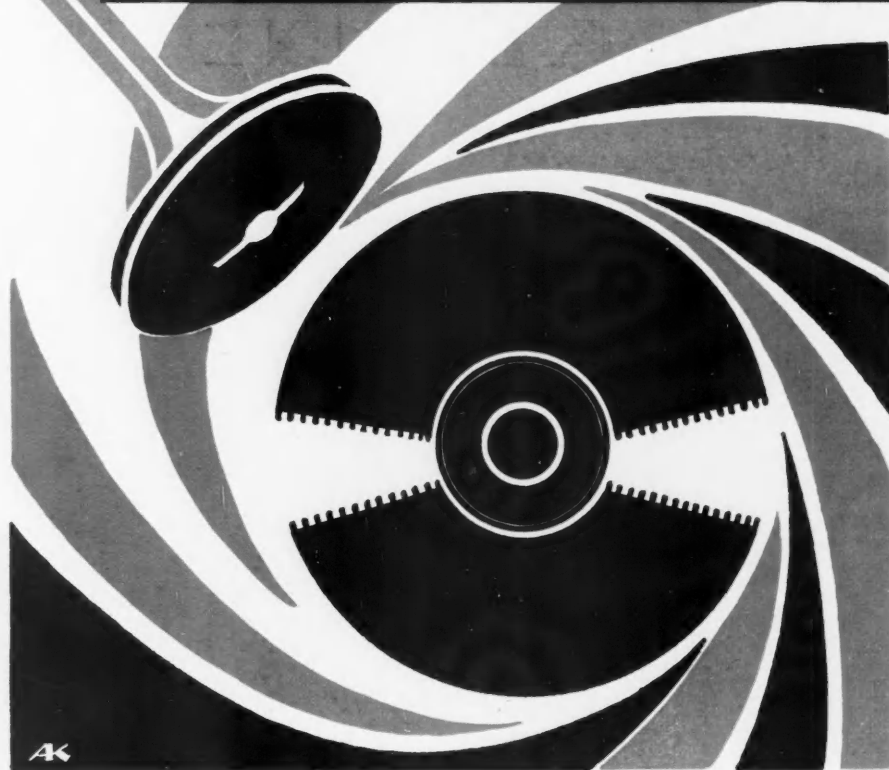
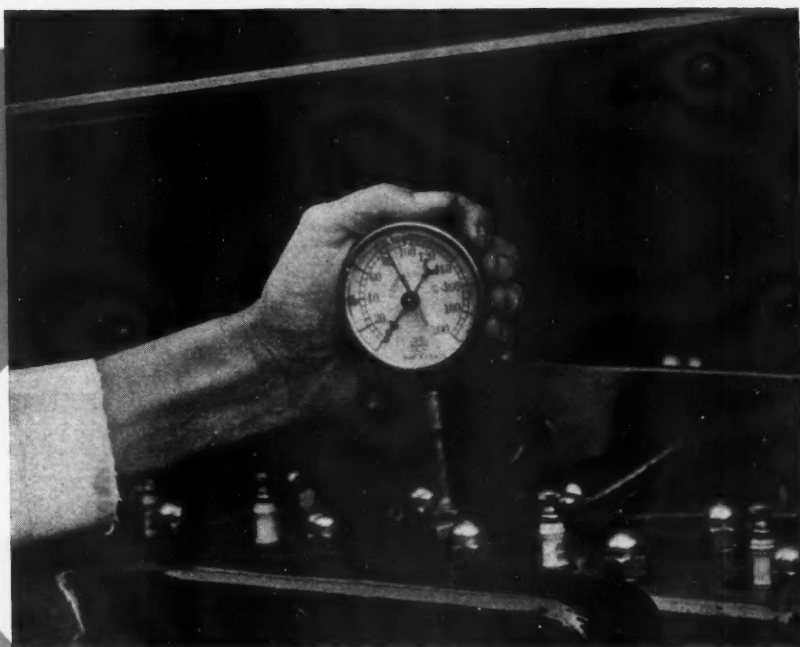
Although mechanics are keenly interested in record-breaking performances in shop work, the actual task confronting them is that of turning out the run of maintenance operations in a low average time. But whether they try to beat a neighboring shop record or please an owner they use the same methods and equipment. In modern shops carbon and valve jobs are put through day after day in time that would have been considered marvelous just a few years ago.

Offsetting this reduction is the addition of various operations to the basic carbon and valve job. The job makes an engine perform better and it is logical to add the operations which make up an engine tune. Service stations add other operations, such as cleaning battery terminals or even flushing the cooling systems to build up "specials" which are sold at bargain. Fleet shops add the engine tune to avoid comebacks or complaints and to satisfy operating departments with their work. One mechanic, photographed in the course of preparation of this article, said: "It takes me longer to do a carbon and valve job now than it did when we did all the work by hand. The reason for this is they keep putting more and more

work on a carbon and valve job order."

The smooth, steady progress of the work as done by a skillful mechanic in a modern shop is deceiving. It seems almost too easy. But the answer is that the mechanic's skill is aided by a wheelbarrow load of hand tools and devices and hundreds of dollars worth of machine tool equipment.

Time required to do a carbon and valve job has been reduced by cutting a few seconds or a minute or two from each of the individual operations included in the job. Actual grinding, on the other hand, has been, for all practical purposes, eliminated



Above: An air pressure gage with a fitting screwed in place of a spark plug shows compression at hand cranking speed. A maximum reading hand shows pressure automatically

At right: Valve seats are machined by reamers or grinders. A large drill press makes a dandy support and drive unit for the operation

by machining valve face and seat. Even mechanics on the job give little thought to the large number of things to do on a carbon-valve job. Whether it takes 10 or 20 seconds to remove a cylinder head stud nut seems unimportant, but the difference on one job amounts to two or three minutes.

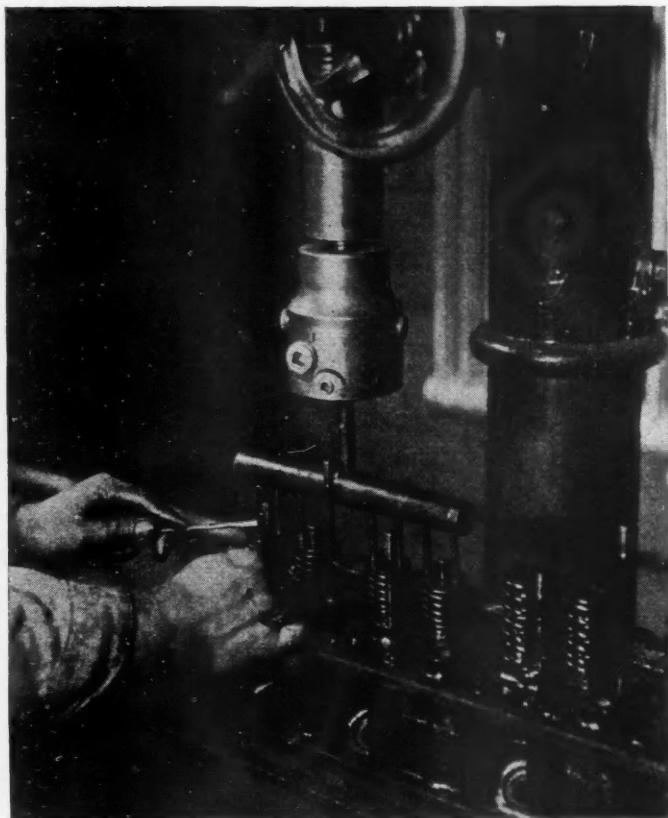
POWER TOOLS CHISEL CARBON-VALVE TIME

Refacing and Seating Machinery and Auxiliary
Equipment Make Job Records Common-
place and Eliminate Crude Hand Work



Shop Equipment to do the Job:

- Electric drill
- Grinders
- Refacers
- Reamers
- Reseaters
- Freeing tools
- Rocker arm levers
- Testers
 - air
 - dial
- Valve guide
 - pullers
 - cleaners
- Drivers
 - Valve spring
 - lifters
 - compressors
 - keeper tools
 - holders
- Carbon
 - cleaning brushes
 - scrapers
- Spark plug
 - cleaning brushes
- Compression gage
- Lifting devices
- Hand tools
- Special tools
- Wrench sets
- Timing outfit
- Overhead hoist
- Feeler gage



Valve spring keepers may be released in gangs on overhead valve cylinder heads. In this case a shop-made bridge-type device frees spring locks on four valves at a time

If everything goes well, all the valve spring locks may be removed to a place of safety in a few minutes. A break of the only valve lifter in the shop which fits the engine may extend the time to an hour or two—dropping one of the locks in the crankcase is just too bad.

When things go along smoothly—let us pick out a few high spots, close-ups of action. Lifting a hood is about as pleasant as carrying a mattress. A rope and pulley overhead pull it up out of the way; if the head can be removed with the hood raised, rather than removed, the rope may be used to hold the hood sides.

Water is drained into a floor pan which is large enough to hold the entire contents of the cooling system, not one which overflows a quart or two. The next task is that of removing cylinder head stud nuts. Socket wrenches, solid or detachable, loosen the nuts and speed wrenches spin them off. Wiring conduits and plumbing are detached meanwhile.

Cylinder heads have none of the characteristics of dirigibles and they must be pulled upward by force, brute force if necessary. Breaking the head loose is difficult and it may be necessary to attach the shop sky-hook to the head while a mechanic pries the head apart from the block. Obviously the head must be put somewhere and alert mechanics find a place for it beforehand. A portable workbench provides a suitable resting place which is sturdy enough to withstand the carbon scraping, on the head.

Removal of carbon brings together the old and new, a few ground hack saw blades and unconventional putty knives in contrast with a wire brush driven by electric drill. The drill also animates the valve guide cleaners.

Taking the valves out calls for use of valve lifters infinite in variety and ingenious in construction. The late Houdini unlocked many mechanical mysteries but it is not related that he ever undertook the stunt of releasing a valve spring lock with a couple of screw drivers and an open end wrench. Mechanics gave up the job long ago.

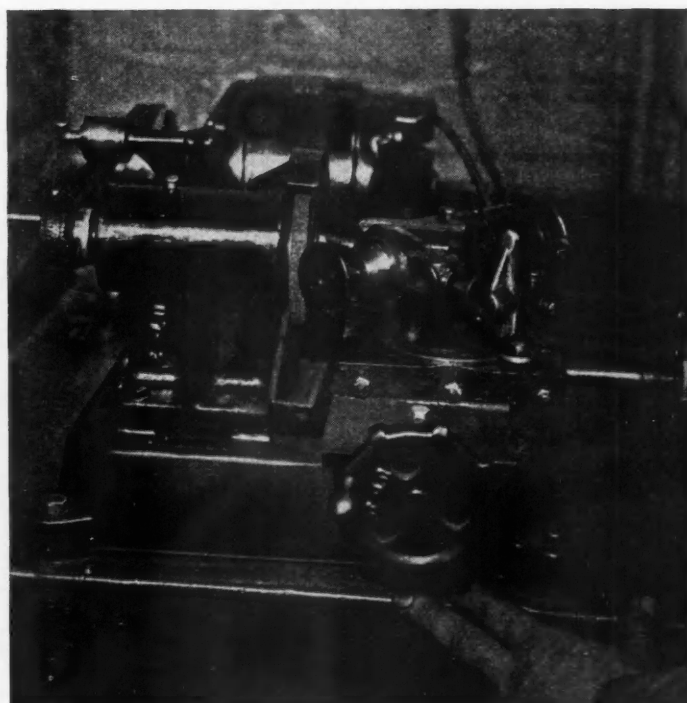
Valves, like the cylinder head, must be put somewhere and sheet metal frames or carriers are used for the purpose. In many shops, valve sets are carried in the stock room and a set of refaced valves is exchanged for those in an engine on the shop floor.

Carbon is removed from valves by a wire buffing wheel on a bench grinder. Faces are ground in a valve machine or turned in a lathe. Heat resisting alloy valves are hard to cut by any means and grinding is the answer.

Modern service is hard on valve seats and they suffer at least as much as the valves, in many instances more. The seats must be true and they must be kept within limits of width. Seats are trued by reamers mounted on a pilot in the valve guide or by grinding stones supported in the same manner. On overhead valve jobs the work frequently is done on a vertical drill, the table supporting the head and the drill driving the reamer. If seats are too wide they are narrowed by a port reamer with an angle of about 15 degrees and cut on top by a facing reamer of about 75-degree angle.

If seat and valve face are perfect they will fit gas-tight without any old-fashioned hand grinding. Many shops prefer a short polishing as the finishing touch. Actual fit is tested by a metal cup placed over the valve in place in the head, or block, in which air is compressed by a rubber bulb and measured by a gage.

Reassembling the parts completes the job. Tappet clearance is set during the assembly to factory clearance measured by feeler gage leaves or feeler stock.



A valve is supported in a revolving head and the face is moved across a grinding wheel

Ignition is checked to avoid comebacks and to insure full benefit of the carbon and valve job, which might be spoiled by faulty ignition. Cleaning spark plugs and adjusting gaps to standard is a necessary part of the work. This is usually done while the valves are being machined. Distributor points are not overlooked, in fact they are either refaced or replaced at this time. Here, too, gap is set to factory standard by a gage or feelers. If ignition timing is to be checked a timing light is used to measure point of opening of the points compared with location of a line on the flywheel. A similar check can be made while the head is off by using a dial gage above the piston on top dead center.

Cleaning carburetor screens is frequently included in the job. Other shops prefer to clean the entire carburetor, especially during the fall and winter seasons. There is some saving in labor on some engines in taking the carburetor off during the valve removal operation. On downdraft engines the carburetor can be taken off without much trouble and it may be taken off with the head.

When a driver complains that an engine lacks pep and power the tester usually checks ignition and carburetion. Loss in compression and accumulation of carbon take place gradually and it is not easy to set up a standard by which the need for a carbon and valve job may be determined. Rocking the engine against compression by hand crank, one cylinder at a time, is the common method, but progressive shops frequently use compression gages. Whatever method is employed, tester or mechanic must exercise some judgment and put through a simple engine tune or a complete carbon and valve job.



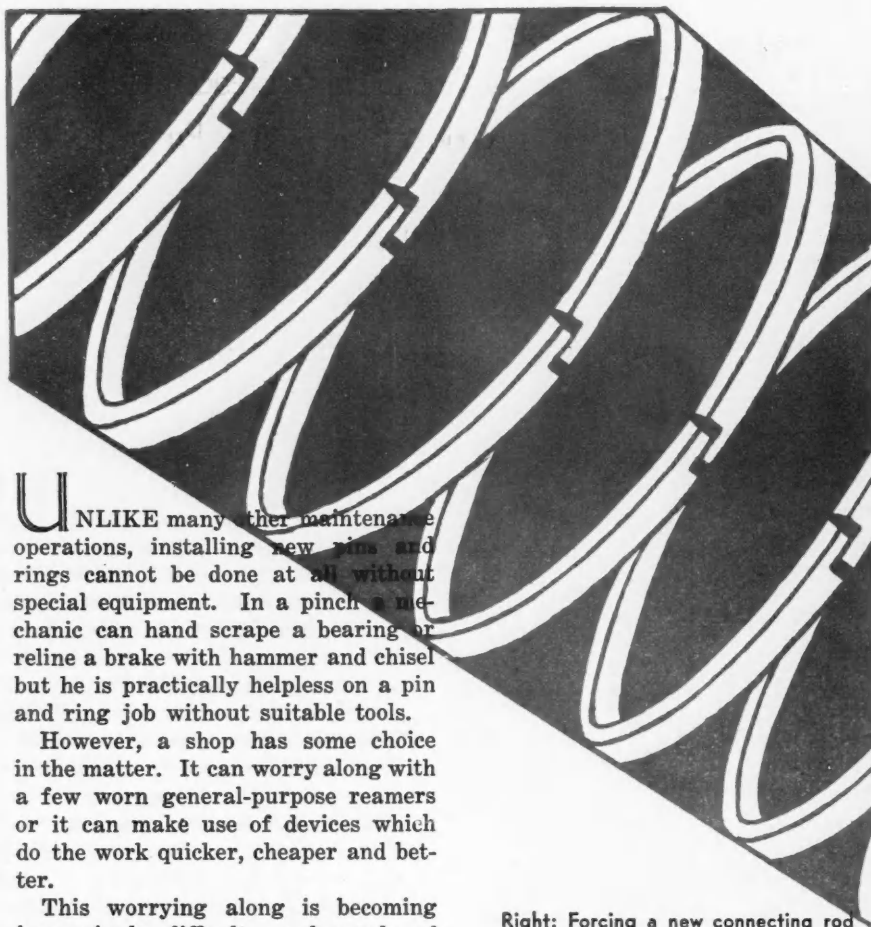
An engine tune-up usually is included in a carbon and valve job. Checking ignition removes one possible source of trouble.

Domestic New Truck Registrations by Makes and Months

	Autocar	Brockway-Ind	Chevrolet	Diamond T	Dodge	Fagool	Fargo	Federal	Ford	G. M. C.	International	LaFrance-Rep.	Mack	Moreland	Paige	Pierce-Arrow	Relay	Reo	Rugby	Schacht	Sterling	Stewart	Studebaker	White	Willys-Overland	Total Sales Including Miscellaneous
January.....1931	223	154	7,569	167	1,183	23	31	111	11,313	447	1,325	28	225	16	27	3	13	273	32	15	62	84	297	221	159	24,415
January.....1930	160	249	8,754	242	1,608	41	186	169	13,233	727	1,835	43	345	51	14	4	28	698	90	21	145	97	104	413	440	30,241
February.....1931	177	107	7,459	135	1,129	31	36	100	10,868	388	1,368	34	184	12	20	4	28	261	30	11	47	85	268	204	184	23,466
February.....1930	135	235	10,332	207	1,269	43	152	162	14,008	552	1,928	44	298	29	43	1	30	565	67	20	74	155	91	320	431	31,882
March.....1931	121	151	9,396	144	1,363	15	28	123	14,731	454	1,881	36	287	17	29	9	18	308	30	10	57	119	362	207	283	30,609
March.....1930	195	384	13,011	264	1,595	48	157	228	19,551	936	2,364	55	452	56	52	3	45	682	62	27	106	265	102	407	559	42,182
April.....1931	155	215	11,195	236	1,575	33	17	150	17,755	590	2,295	58	344	19	20	18	42	354	31	21	104	166	381	228	346	36,848
April.....1930	216	492	14,055	300	1,684	52	153	252	21,757	1,242	2,740	71	566	57	64	4	61	903	47	47	147	314	98	480	564	47,032
May.....1931	155	190	9,932	260	1,492	24	13	170	15,675	543	2,382	40	355	19	18	17	38	306	20	16	101	175	426	254	421	33,496
May.....1930	212	544	12,825	373	1,504	59	152	213	19,758	1,191	2,531	49	717	36	55	2	93	737	59	55	147	305	115	452	456	43,245
June.....1931	179	144	8,970	240	1,285	37	14	144	12,448	513	2,078	45	294	11	24	18	29	466	20	25	50	136	288	267	351	28,496
June.....1930	183	481	9,761	261	1,113	56	118	158	15,669	889	1,917	56	446	29	19	2	43	581	54	38	109	207	102	412	352	33,512
July.....1931	136	143	9,539	304	1,251	32	12	151	12,932	728	2,282	58	288	22	9	12	34	648	18	4	71	129	301	233	355	30,101
July.....1930	194	388	10,947	338	1,080	47	124	209	19,841	882	2,477	50	577	39	35	2	41	583	71	43	100	266	88	460	409	39,888
August.....1931	112	186	8,979	267	989	37	7	125	11,575	735	1,827	25	289	12	17	8	21	609	16	14	59	117	248	207	277	27,070
August.....1930	171	251	9,544	277	707	32	91	142	17,086	604	2,223	51	405	33	29	3	27	436	72	26	102	184	83	399	295	33,758
September...1931	130	110	8,817	227	922	30	8	100	10,843	640	1,863	37	174	4	26	12	23	623	8	17	68	110	292	237	271	25,967
September...1930	171	191	9,716	217	1,018	33	60	155	17,531	622	1,827	63	360	41	28	3	25	402	75	21	92	172	102	317	249	33,933
Total 9 Mos..1931	1,388	1,400	81,856	1,980	11,189	262	166	1,174	118,140	5,038	17,301	361	2,440	132	190	101	246	3,848	205	133	628	1,121	2,863	2,058	2,647	260,468
Total 9 Mos..1930	1,637	3,215	98,945	2,479	11,578	411	1,193	1,688	158,434	7,645	19,842	482	4,166	371	339	24	393	5,587	597	298	1,022	1,965	887	3,660	3,755	335,673

While September truck registrations have slipped about 22½ per cent below the level of September a year ago, the per cent decrease for the nine months of the current year is slightly better with 22½ per cent. An interesting fact revealed by the table is that, despite the total decrease in registrations, seven of the makes listed exceeded last year's figures.

Production figures for September as released by the Bureau of the Census shows that in September a total of 31,338 trucks were produced in the United States. This compares with 31,772 trucks in August, 1931; 44,223 in September, 1930, and 51,576 in September, 1929. These totals are based on figures received from 113 truck manufacturers.



UNLIKE many other maintenance operations, installing new pins and rings cannot be done at all without special equipment. In a pinch a mechanic can hand scrape a bearing or reline a brake with hammer and chisel but he is practically helpless on a pin and ring job without suitable tools.

However, a shop has some choice in the matter. It can worry along with a few worn general-purpose reamers or it can make use of devices which do the work quicker, cheaper and better.

This worrying along is becoming increasingly difficult as demands of truck owners for jobs which don't come back are more insistent and factory specifications for fitting are given with smaller tolerances. A recent factory service bulletin advised shops of a change in cylinder wall pressure of rings in current production. Aluminum pistons are reamed so accurately

Right: Forcing a new connecting rod bushing into position and displacing the old by means of a press of suitable capacity. A collar supports the rod end and receives the old bushing. Top, page 21: Pistons must be reamed very accurately, to fractions of a thousandth, in fact. A mechanic turning the work by hand takes two or three cuts to make sure the job is true. Alignment of the two holes is just as important as the size



PIN-RING FITTING

that the pin can be pushed in place with the piston hot, but not cold. Which, as one mechanic put it, is splitting a thousandth several ways.

Time actually required to install a new set of rings and pins is but a fraction of the total time for the job, a fact which frequently is overlooked. Removing the cylinder head and oil pan and putting the piston and rod assemblies on a work bench takes time. Of course, this much of the work is done for other general jobs but it is a large part of a pin and ring job and, therefore, is relatively, if not actually, more important.

TURN TO PAGE 22, PLEASE

Right: Bench fitting is followed by a final check of gap with rings in place. Bottom, page 21: If the pin floats in the rod, the rod bushing, too, must be reamed to exact size. The bushing is relatively short, and light cuts are the rule to prevent misalignment



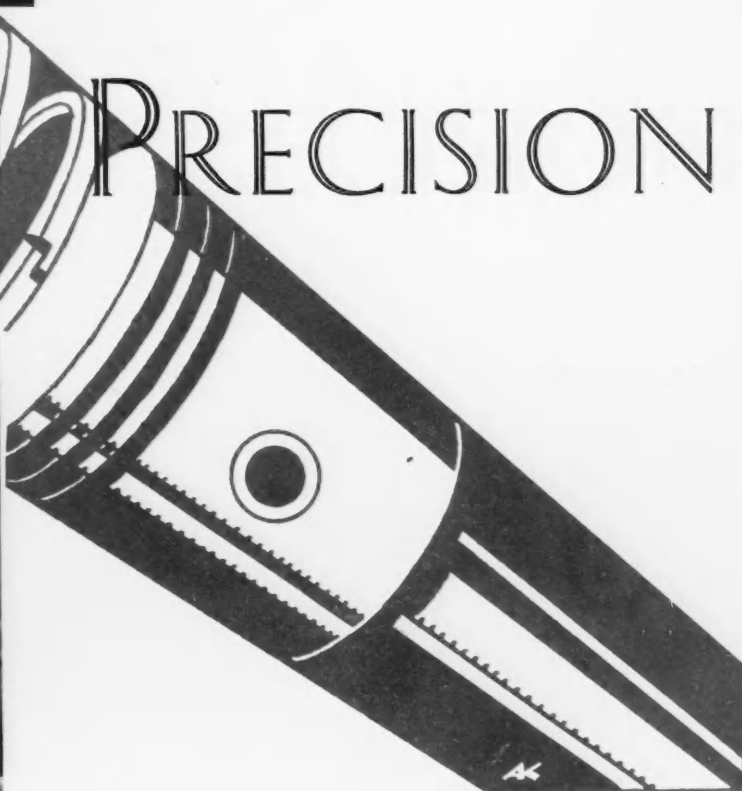


Proper Devices Simplify This Delicate Job Where a Hair's Breadth Deviation From Correct Size May Prove Costly

Shop Equipment
to do the Job:

Portable hoist	Feeler gages
Overhead hoist	Micrometers
Arbor press	Piston heaters
Bushing drivers	Surface plate
Reamers spiral straight	Ring gages
Piston vise	Tension gages
Spring scale	Sleeves or inserters
Balance scale	Hones
Rod and piston aligners	Electric drill
	Files

LEANS ON PRECISION



PIN-RING FITTING LEANS ON PRECISION

CONTINUED FROM PAGE 20

After the rod and piston assemblies are removed, in fact, while they are being removed, a rack or frame is used to hold them. If they are thrown about on the work bench they are in the way and likely to fall off or be otherwise damaged.

Removing piston pins is the next step in the operation, and piston vises meet the need for a firm support for the piston. Pin locks are put in to stay, and a lot of pressure must be exerted to loosen them.

Sliding thumb and finger along the surface of a piston pin is not the right way to measure wear, and modern shops use micrometers. Upon this measurement depends the cost of installing new pins, at the time, and the "miking" must be accurate.

Old bushings are taken out of rods and new ones installed by one stroke of the ram on a floor press. Bushed pistons require a different set-up, and bushing drivers may be used.

Bushing in the upper end of the connecting rod is reamed by straight or spiral reamer with close adjustment. Material is not removed all in one cut but in one or two roughing cuts and a finishing cut.

Holes in pistons must be reamed not only to proper size but in alignment. Skilled mechanics make a good job with ordinary reamers but they, and men not so experienced, find it much easier to use pilot reamers for the purpose.

Just how tight a new piston pin should fit in bushings is a subject about which there is some difference of opinion. Tight to one mechanic is loose in another's opinion. It is easy to set a standard of pull required to move the big end of the rod while the piston is held in a vise. This pull can be measured with ease by a spring scale.

Many shops prefer a final polishing of the wearing surfaces on a pin job and they either lap the pins in the bushings or hone the bushings. The hones are similar to those used in hydraulic brake cylinders and are driven by an electric drill.

Alignment of connecting rods should be checked whenever they are removed from the engine. On a pin job this check should, of course, be made after assembly.

Ring fitting is a precision job throughout with all the controlling dimensions measured in thousandths of an inch. Just a little too much clearance between ring and groove will make of that piston an excellent oil

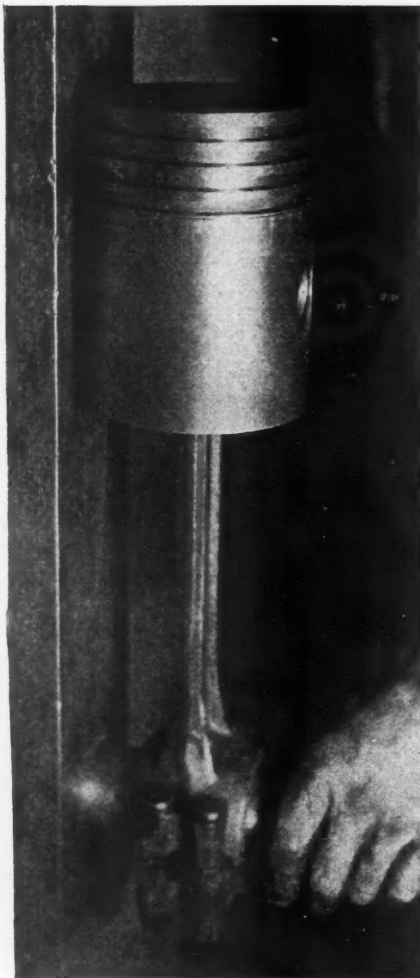
pump. A hair's breadth too little gap clearance may score a cylinder or cause the engine to seize.

Many mechanics have their own pet standards for fitting rings; others follow factory recommendations to the letter. In either case precise measurement is essential, otherwise both are guessing, and guessing does not pay.

Rings are fitted directly to respective cylinders in most cases, but time and discomfort can be saved by making a preliminary fit in a ring gage.

The common pin and ring jobs include:

- ⊗ 1. Rings, renew all, align and adjust rods.
- ⊗ 2. Rings, renew 11. (Rods out).
- ⊗ 3. Rings, renew all and align rods.
- ⊗ 4. Standard pins and bushings, renew all, align and adjust rods.
- ⊗ 5. Piston pins, renew all and align rods only.
- ⊗ 6. Rings and pins, renew all and align rods only.
- ⊗ 7. Piston pin, renew one. (Rod out).
- ⊗ 8. Piston pins, renew all, align and adjust rods.
- ⊗ 9. Piston pins, renew all. (Rods out).
- ⊗ 10. Rings and pins, renew all, align and adjust rods.



Alignment of connecting rods should be checked whenever they are removed from engine

These gages are simply circular steps turned in a block of iron and marked with exact size. If a given cylinder measures 3.255, the rings can be fitted on the work bench in a circular gage measuring 3.255 in. inside diameter. Any filing and measuring which is necessary can be made in good light and in a position comfortable for the mechanic. Squatting on a sloping fender side or straddling an engine block and stooping over to reach the cylinder bore may be an interesting gymnastic performance for bystanders, but it is no fun for mechanics.

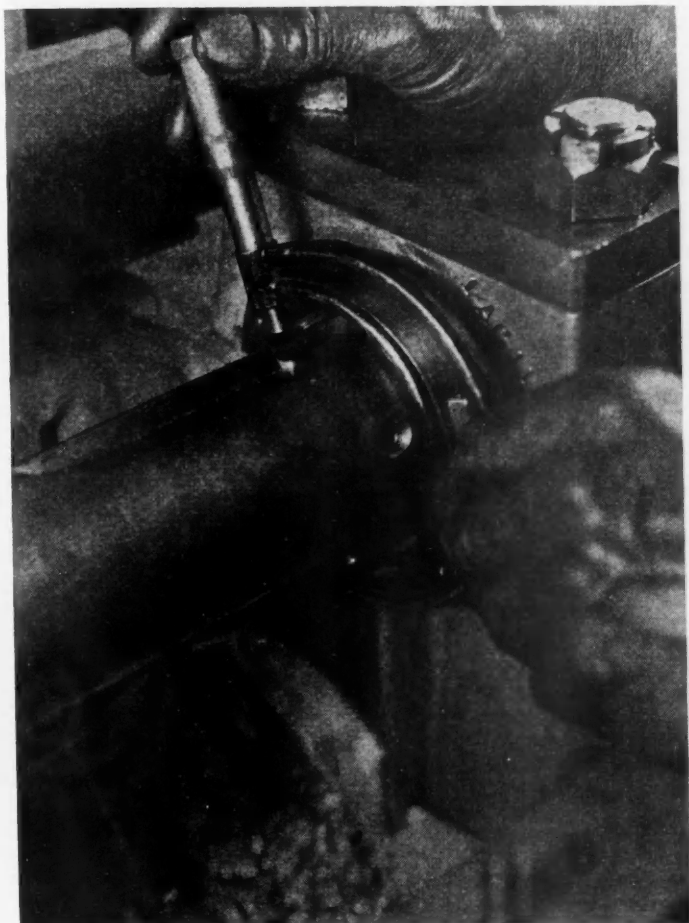
This bench fitting is followed by a final check of gap with the rings in place in a cylinder, as shown in one photograph. Fitting ring to groove is an operation upon which much depends. If the ring is too tight, it will stick and be useless and if it is loose in the groove it will hold compression but allow too much oil to pass to the combustion chamber. Minute burrs on either ring or groove will make the ring stick, and mechanics have formed the habit of rolling a ring all the way 'round a groove, like a hoop, several times to make sure that there are no binding areas.

Feeler gages measure the clearance between ring and groove, but this must be done skillfully because it is possible to force the fit and make the clearance measure more than it really is. Another possible source of error, and of trouble, is an up-and-down curve in the ring. If the ring is thus warped it will bind in the groove even though clearance measured at two or three points is okay.

Another refinement has come into ring fitting which is setting standards for ring tension. Engine builders must design every detail of piston, ring, and lubrication system to suit operating conditions. The number and size of oil drain holes in a piston is based upon many factors, one of which is the type and tension of the ring. No doubt many, many rings will be fitted with no more test of tension than a squeezing in a mechanic's palm, but something more accurate is needed and is being found.

Putting piston and ring assemblies back into cylinders has tried the patience of hosts of mechanics. Sometimes the rings seemed possessed of a spirit of their own, an evil spirit in fact. Many are the sleeves, bands, wires and clamps devised to reduce the stubborn rings to submission. Bell-mouthing the bottom of the cylinder bore helps when pistons are inserted from below, but bell-mouthing the top of the bore is frowned upon by combustion chamber designers. The job has been licked by piston inserters of various types.

BEARING SCRAPING IS SCRAPPED BY MACHINES



This mechanic is setting the cutter of a main bearing boring bar to exact size by measuring with a micrometer. Two cuts are made, a roughing cut and finishing cut

ONE photograph is missing from the group illustrating this article. Our intention to show a close-up of a mechanic hand-scraping a bearing, in contrast to machining views, was thwarted by the fact that not a single bearing scraper could be found in a large, well-equipped and busy service establishment. Which, as a parson might observe, makes a text.

Bearing equipment has eliminated hand-fitting of bearings, doing a better job in less time and at much less cost. What has become of the old-timers who boasted of "a set of three mains, about 90 per cent surface, in three working days?"

Another advantage of modern equipment is that bearings

may be machined in a central shop and forwarded to a truck at any distance with the assurance that they will fit without hand-scraping. Many shops maintain records of crank-pins' sizes in engines they service so that rods can be sent out at any time, even for roadside jobs.

Looseness in connecting rods in a pressure-lubricated engine is revealed not by a slight knock but by excessive oil consumption and, perhaps, oil pumping. Bearings may wear until they are throwing off too much oil, without knocking.

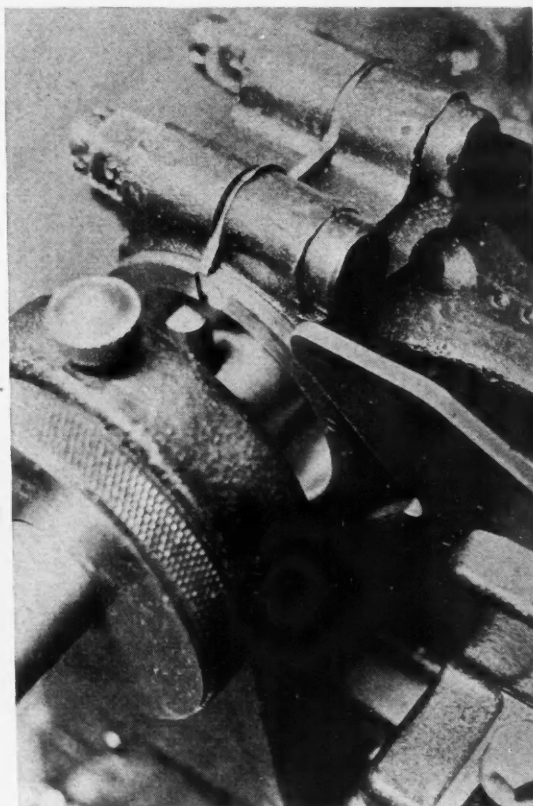
With connecting rod rigidly supported in position the cutter machines the lower end bearing to size and in alignment

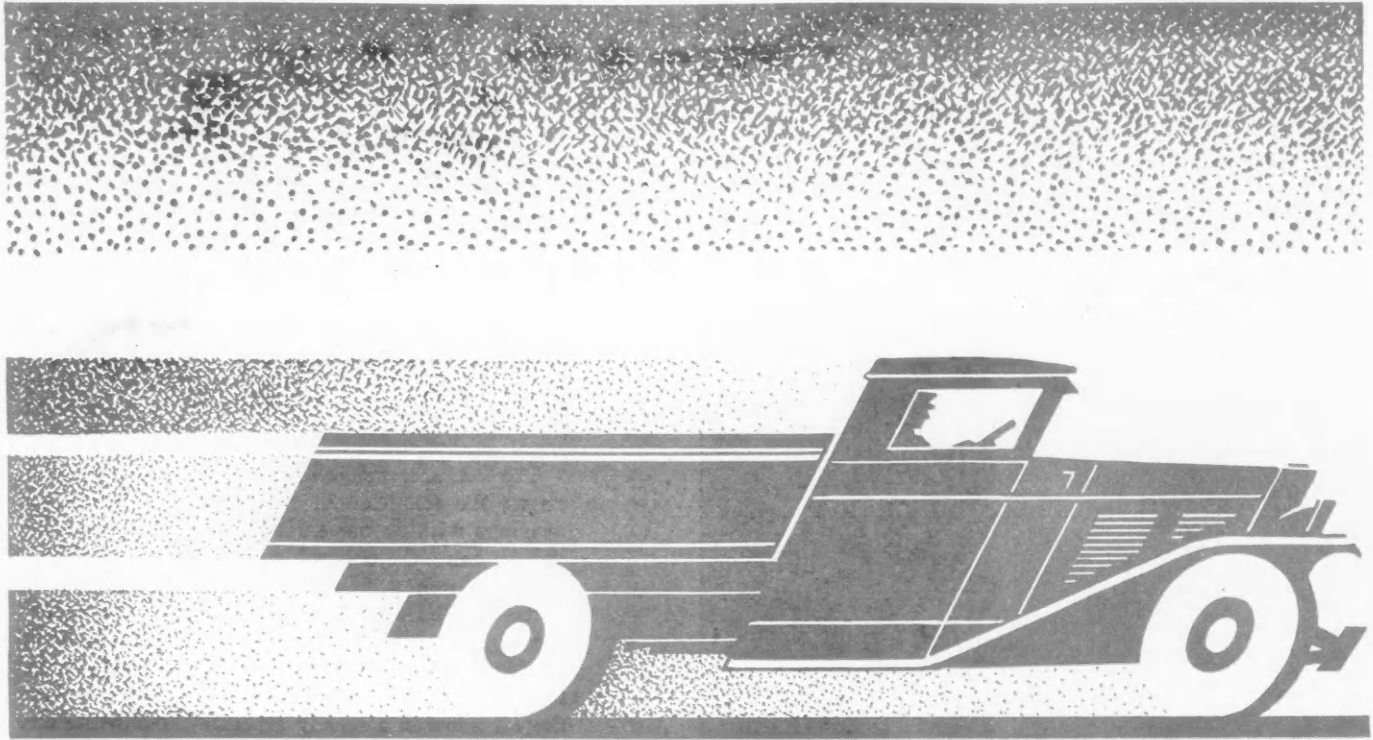
Shop equipment to do the job: oil pressure test outfit, connecting rod reamer or boring machine, fillet cutter, main bearing line reamers or boring bars, micrometers, feeler gages, dummy crank pins, engine and running-in stands

The oil pressure test, conceived of necessity, shows the condition of main and connecting rod bearings with no more dismantling than dropping the oil pan. Oil under air pressure is fed from a tank through a flexible tube to the lubricating system. The amount of oil dripping from each bearing shows its condition. Normal flow is drop by drop. On bearings with some wear the drops become more numerous. From a loose bearing the oil flows in a steady stream. Meanwhile any stoppage, complete or partial, in the passages may be detected. Equally effective is the oil pressure test for fit of new and machined bearings during engine assembly.

Lots of connecting rods are still being fitted, in spite of the popularity of interchangeable, non-adjustable bearings. Two types of machining vie for favor in this field—reaming and boring. The reamers are special-sized adjustable types which cut a smooth circular surface. The boring bars, or fly-cutters, are incorporated in fixtures which support the rod in position and pilot the bar and cutter along an axis which is parallel with the

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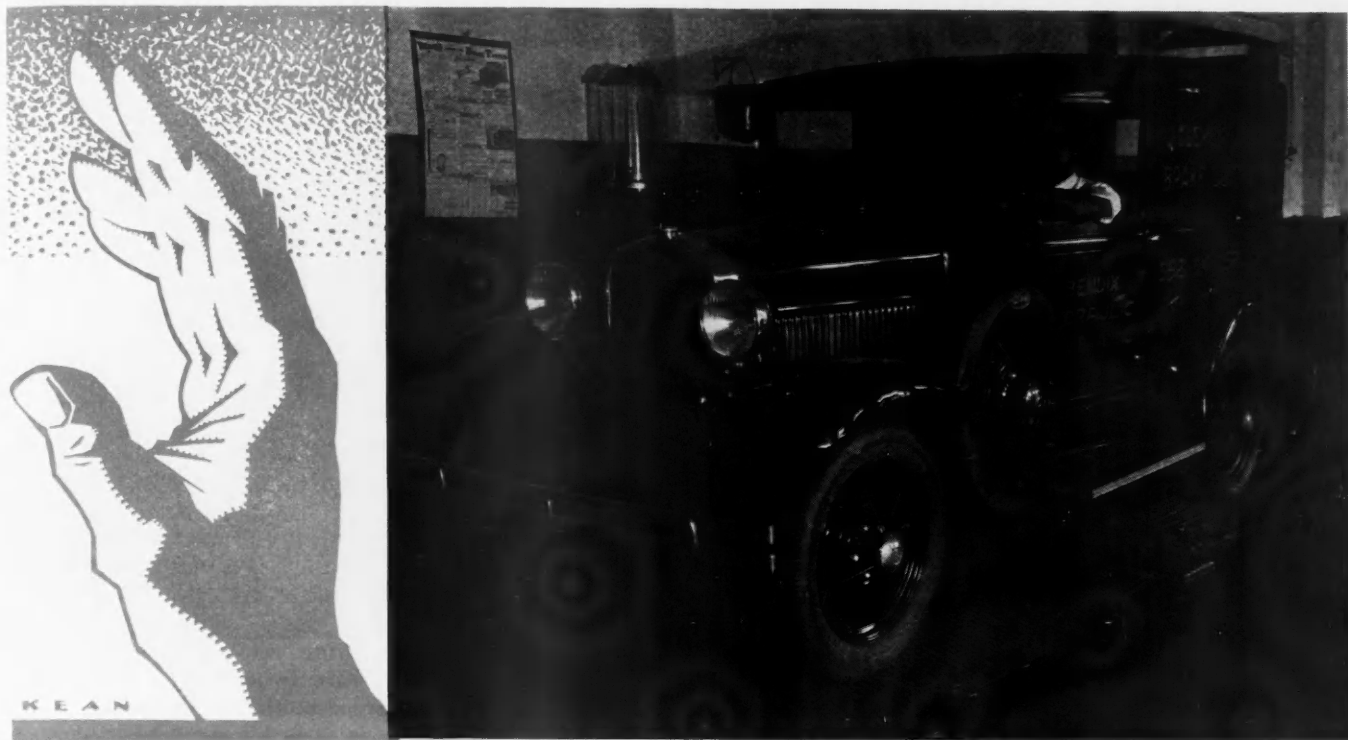
EQUIPMENT SPEEDS



Shop Equipment to do the Job:

Inspection and Testing	Spanners
Decelerometer	Drills
Brake tester	Riveter
Floor type	Dummy drums
Wheel type	Lining cutters
Clearance gages	Lining clamps
Pedal depressor	Lining grinder or buffer
Adjustment and Repair	Adjusting jigs or gages
Wheel pullers	Drum lathe
Jacks	Drum grinder
Wheel jacks	Cylinder hones
Special wrenches	Bleeding tanks

Top, page 25: Brakes are tested with the vehicle in motion on this tester. Brakes are applied as the wheels pass over floor plates. Force on the plates, which is the braking effort, is shown on pressure gages. Left: The illustration, however, shows a mechanic punching old rivets out of an external operating shoe. Some riveters also serve as punchers. Conversion is accomplished by substituting a special die for the purpose



UP BRAKE SERVICE

A COMPREHENSIVE grasp of mathematics is not essential for determining that trucks, operating under present-day conditions, are hard on brakes. A glance at any scrap pile, or a study of shop orders, will show that brakes suffer brutal punishment. A ready explanation of the situation is found in a formula which many learned in school days. It is written

$$E = \frac{MV^2}{2}$$

which, applied to a motor truck, shows that momentum, the energy which must be absorbed by the brakes, increases directly as weight increases but as the square of the speed. For illustration, at any given speed it takes twice as much braking to stop a truck with a gross weight of 20,000 lb. as a 10,000-lb. vehicle. But note the effect of increasing the speed: the formula shows that a truck traveling at 40 m.p.h. is four times (not twice) as difficult to stop as a vehicle going only 20 m.p.h.

Increasing loads on brakes are the demands of traffic. Quick stops are the order of the day—and the traffic officers. When a vehicle ahead stops

Up-To-Date Shops Also Demand That Brake Work Be Right and Stay Right

suddenly, or a boy on a bicycle swoops out of a driveway, or some other emergency arises, a truck must halt, almost instantly. Trucks with excellent brakes can decelerate several times as fast as they can accelerate, which means that brakes must absorb several times as much energy as the engine develops.

Two other conditions which puzzle designing engineers developed as speeds increased and stops became, of necessity, shorter. Demand for lowness in appearance in trucks and adoption of balloon tires brought about a decrease in size of wheels, in which brake drums are mounted. The second condition is the general improvement in design and material which led owners to expect much longer life in all wearing parts than formerly.

Brake designers met the challenge, and, despite all handicaps, found ways

to stop high-speed trucks with brakes that gave tens of thousands of miles of service with a minimum of attention or trouble.

Maintenance shops, meanwhile, found entirely new problems before them. Clearances measured in thousandths of an inch, ratios of braking front and rear, and two different kinds of lining on the same wheel were but a few of the new things. And, as in the case of brake design, each new problem in maintenance was solved as it arose.

A shop equipped for brake work turns out jobs on a production basis with little guesswork or trial-and-error procedure. Each operation is performed in a certain manner for a definite reason and to a standard. This does not mean that no skill or judgment are used. On the contrary, troubles are detected and cured in a

fashion quite the opposite of the haphazard. Individual problems are considered; specific remedies evolved. One shop was called upon to stop squeals on a light delivery job in traffic and to lengthen life of linings on a dump truck on road work in the mountains (relinings lasted two weeks) all in one day.

The first essential for any brake work is a test to show what, if anything, is required. The simplest test is that of jacking up all four wheels, applying the brakes slightly and then turning each wheel, in sequence, by hand. If much testing is to be done, the four jacks are replaced by a hoist or lift which raises the vehicle as a unit by pressure under the axles, leaving the wheels free to turn. Drag of the wheels may be measured by a scale attached to a handle.

Both electric power and vehicle inertia are used to test brakes in the mechanical testers. In one power type the wheels are placed on pairs of rollers which are driven by electric motors. When brakes are applied,

the rollers tend to move around the tires and the resistance is measured on a scale. This action is like that of pulling the road under the vehicle. A similar action is used in another type of tester, in which plates on which the wheels rest are pulled by air cylinders. In both cases, of course, the vehicle is blocked in position.

In the inertia testers the vehicle is driven over plates and the brakes applied, as shown in one of the accompanying illustrations. This action moves the plates forward, and this force is registered on gages.

Most of the adjusting of four-wheel brakes is done with wheels off the floor, and when a hoist is used to elevate the vehicle, it may be placed within the area of the tester so that tests and adjustments may be alternated, as required, without moving the vehicle.

Brake-lining machines apply rivets in countersunk holes as fast as the operator can move the shoe into position. Many machines have automatic feed

The brake pedal must be held in a fixed position while brakes are tested on the power machines or by hand. This can be done by an extra man, but at best it is difficult for a man to hold his foot absolutely still. To overcome this difficulty, and to make brake adjusting a one-man job, pedal depressors are employed. They may be adjustable rods backing against seat structure or a pneumatic cylinder type of mechanical leg.

Internal brakes usually are shielded and the inside of the drum and the lining are hidden from view. Holes are provided in the backing plate so that clearance may be measured at this point by means of a feeler. If clearance is not uniform throughout the length of the shoes, a single measurement will not suffice and shoes are adjusted on a dummy drum, placed in position after the wheels are removed.

Removing wheels, especially dual-tired rears, is no picnic. Wheel pullers are essential on the larger sizes, and the assembly must be supported on the way out. Many mechanics rely upon greased plates for moving the wheel sidewise, either off or on. Floor cranes are frequently used for this purpose and they carry wheel and tires complete into the machine shop for machining the drum.

Actual relining of shoes has been so simplified by machinery that many establishments supplying lining offer to apply it for nothing. Rivets are punched out by a single thrust of a pedal and applying new rivets is just as easy, although another machine is ordinarily employed for the purpose.

Removing and replacing heavy brake-shoe springs is a job which tries the patience of mechanics. Some of these springs are so stiff that they cannot be stretched with ordinary pliers. Special pliers and prying tools make this task easy.

Taking off one set of shoes and putting another in its place is all there is to the actual brake relining in many shops, because they use exchange sets of relined shoes.

Running-in or "setting" new lining is almost a thing of the past, for the very practical reason that there are no high spots on the linings. After the lining is applied it is ground to a smooth and true surface on special grinders. If the curvature is right, the lining will contact the drum throughout its effective area, and there is no need to wear off the high spots and then make a second adjustment.

Effective braking action and reasonable length of lining life depend upon the wearing surface of the drum as much as upon the lining. The scoring which takes place in drums is alarming to behold in many cases.





Erratic action and noise ensue when drums run eccentric; when drums become oval-shaped they are almost useless.

Truing the inner surface of a drum by itself is easy, but drums are not used by themselves but attached to wheels. It is possible, of course, to remove the drum, machine it and bolt it back in place again. But the chances of getting a perfectly true assembly are small. Therefore, the drum is reconditioned while in place upon the wheel, frequently with tires mounted.

Swinging wheels and tires requires a turning machine with plenty of swing. The general shop lathe serves for this purpose if made with a gap in the bed or equipped with head and tailstock blocks. If much drum truing is to be done, drum lathes are used. They incorporate the same driving and feed mechanism as conventional lathes, but have no tailstock and the work overhangs the machine. Another popular type is based upon boring mill design, the wheel being revolved while in horizontal position, as shown in one of the accompanying photographs. Some drums, like those in the Ford, are finished with a rolling process, and this cannot be duplicated in ordinary shops. Factories advise against turning such drums.

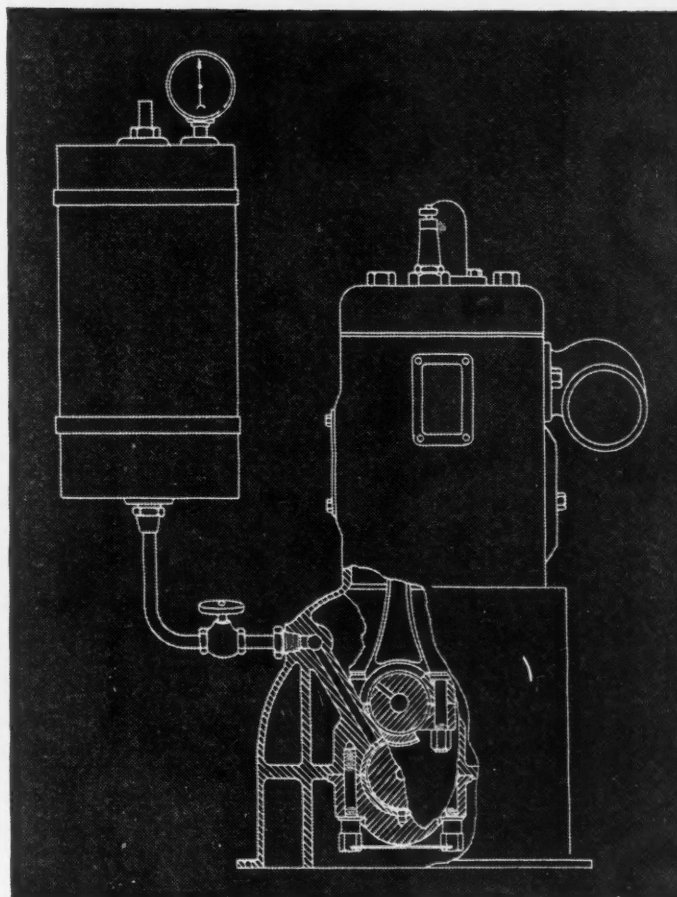
Operating parts of hydraulic brake systems obviously are different than those of mechanical systems. Bleeding, a common operation, can be done with no more equipment than a glass jar and a bleeding hose. But more convenient is a bleeding tank which holds enough to bleed and refill several systems without refilling. Another operation peculiar to hydraulic systems is that of honing brake or master cylinders right in the chassis.

These small hones are driven by portable electric drills.

Air-brake systems contain air compressors and controls in addition to the brakes and operating diaphragm. Compressors are similar in construction to miniature engines, and mechanics have little trouble in fixing them. The job can be tested by driving the compressor by electric motor and measuring pressure, cut-in point and leaks by means of pressure gages.

Above: Worn, or eccentric drums are reconditioned in large lathes, special lathes or vertical boring mills. Tire and wheel are in place during machining

Right: The oil pressure test for checking clearance and fit of bearings and freedom of flow in oil passages is made by connecting lead from a tank of oil under pressure to the engine and watching the discharge from each bearing



Tests on the system in the chassis are made by pressure gages.

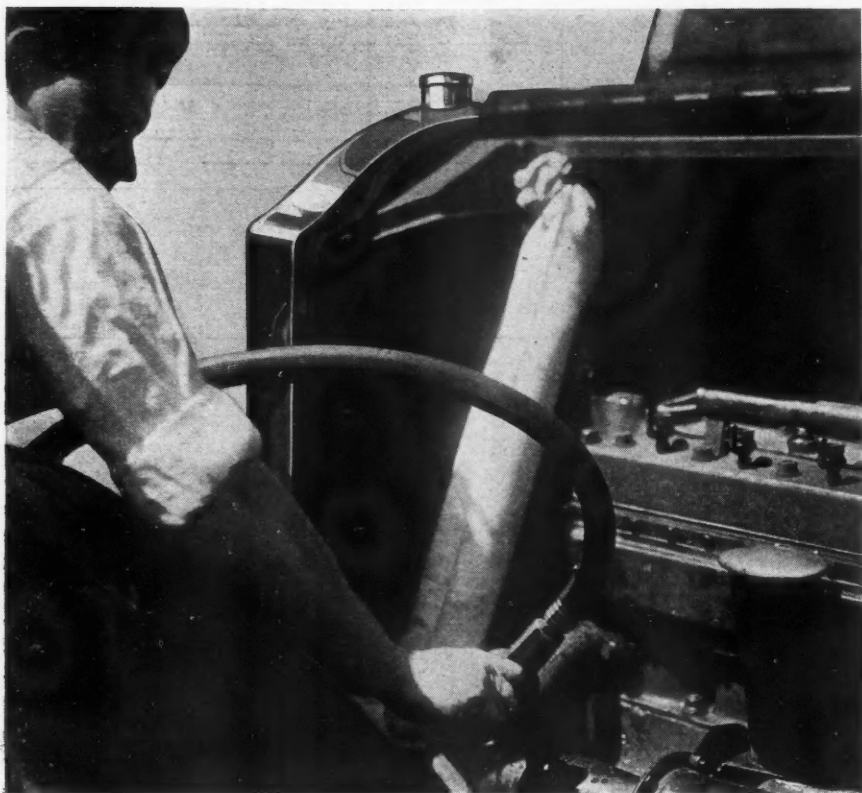
BEARING SCRAPING IS SCRAPPED BY MACHINES

CONTINUED FROM PAGE 23

axis of the wrist pin. Another type of cutter turns fillets to the proper curve and the total width is measured by mikes. In many of the fillet machines the rod is revolved about the cutter, rather than cutter in the rod bearing.

Both line-reaming and boring are old methods of cutting bearings to size and in alignment. Much ingenuity has been displayed in design of equipment required to apply these methods to machining engine main bearings. General purpose machines are adapted to a large variety of engines and even the special machines take care of two or three types of engines. Much thought has been given to saving time in set-up of these main bearing outfits. The whole job depends upon the accuracy with which the machine is assembled to the crankcase. Shimmiing with strips of paper or blocking up with odd pieces of steel takes a lot of time. Actual reaming takes but a few minutes.

A modern shop turns out main bearings which last approximately as long as the original factory production.



FLUSHING WASHES

About 20 Per Cent of Overheating Causes Can Be Eliminated By Modern Methods of Cleaning Cooling Systems

FEW truck maintenance jobs are more irritating or expensive than those which center on the cooling system. The cooling systems of the majority of today's trucks are fully as delicate in operation as those being built for passenger cars; the service to which they are subjected is much tougher, and from today's service standpoint, their maintenance is most important.

Although there are about 50 causes of overheating, only 8 or 10 of which are traceable to the cooling system, for the purpose of this article we will assume that timing, lubrication, loading, power transmission, brakes and all other parts and functions except the cooling system are normal. Cooling

system troubles can be eliminated by proper maintenance, providing the design of the cooling system is such that its tendency to overheat is not drafted in on the original drawing.

Although some maintenance operations are now more or less matters of regular routine in the better run shops, cooling system service is still supervised mostly by the driver, at least to the extent

Top: The proper way to reverse-flush a radiator. The flushing stream is forced up through the core from the bottom and out of the top hose connection. The overflow hose carries the exhaust stream away from the engine

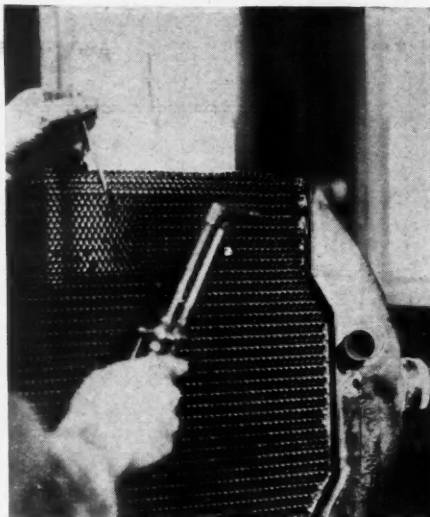


where nothing is done until he rolls in off the shift 10 deg. hotter than the radiator.

A modern service shop attending to an overheating system proceeds with the following method of cooling system cleaning:

Drain the cooling system. This should be done after the engine has run a few minutes and by breaking away the lower hose connections as well as opening the draincocks. The open hose gives the water a chance to gush out, carrying with it some of the muck. The draincocks carry off the low spots.

While the system is draining, mix a solution of 1 lb. of Oakite for each 3 gal. of water in the system, or mix one of the cleaners on the market according to directions. Warm water is preferable to cold, since the cleaner will dissolve more quickly.



Leaks sprung in the cores of radiators can be corrected with flame and solder

Close the draincocks, connect the lower hose.

Pour 1 qt. of kerosene oil for each gallon of water into the empty cooling system.

Fill the system with cleaning solu-

tion to within a few inches of top.

Start engine, retard spark and run till hot. Idle 15 to 20 minutes hot. While the engine is idling, inspect the points marked on the accompanying diagram following equipment:— for leakage. Assemble Air-line, pressure not to exceed 70 lb.; water-line; flushing tool. Attach water line to gun.

Stop engine. Drain cleaning solution by opening lower hose and draincocks. Operator must be careful not to scald himself.

Break away upper hose, and attach overflow pipe (comes with gun; or old inner tube).

Apply flushing gun to lower radiator hose, turn on water and flush

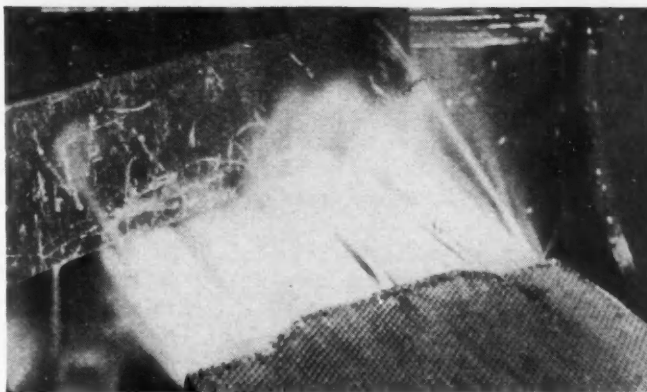
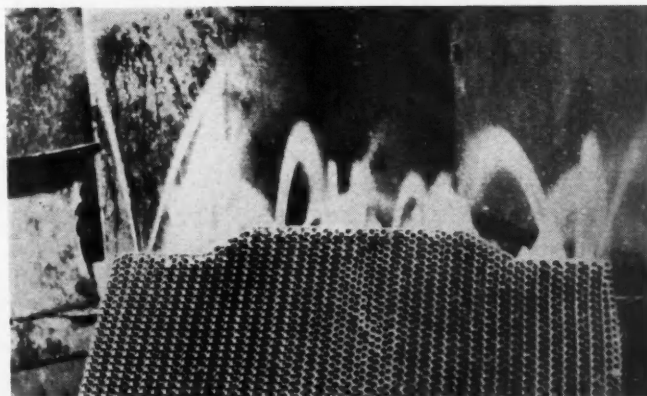
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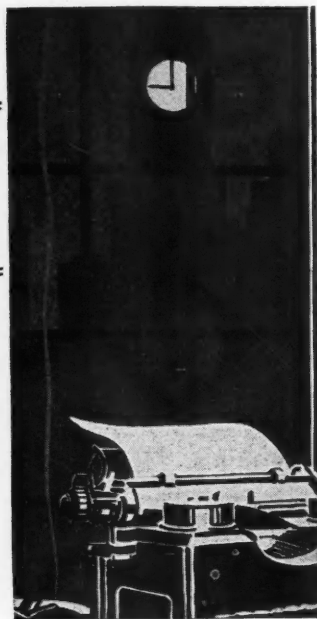
OUT COOLING CARES

Shop Equipment to do the Job:

Compressor
Flow meter
Air gage
Guns or nozzles
Hose
Cleaning compounds
Screw driver
Wrenches
Buckets
Drain pans
Filling cans
Testing tanks
Torch
Solder
Soldering irons
Cleaning brushes
Punches
Files
Taps and dies
Hacksaw
Pliers
Grease gun
Drills

Radiators with cluttered cores prevent even passage of water. The upper view shows spurting streams ejected from a cluttered radiator, while the lower illustration shows the even ejection of a cleaned radiator





AFTER HOURS

All Eyes Are on the Shops

Truck maintenance shops all over the country had as much responsibility thrust upon them by the business depression as fell to the lot of President Hoover. And both of them—unless you're a Jeffersonian Democrat—are meeting the responsibility bravely and acquitting themselves nobly. Since this isn't a political screed, let's drop the president without even whispering "we want beer."

When truck users went on a buying strike they took trucks in use for one of the hardest rides in history. They continued to operate them long after their normal period of efficient usefulness had passed. To keep them on the roads became the task of the maintenance shops in trade and fleet establishments. Today in these establishments nothing is more important than the maintenance department. And in the maintenance departments nothing is quite so important as the equipment which enables mechanics to do the work speedily, efficiently and economically.

That is why this number—the Special Shop Equipment and Maintenance Issue—is timely and significant. Its entire emphasis is on how to make use of shop equipment, and it fulfills its purpose by dealing specifically and practically with the more frequent maintenance operations.

This winter the motor truck industry will face the toughest maintenance task it has ever encountered and the weapon that will battle interruptions most successfully is shop equipment.

I. C. C. Decision Ruins a Boom

The truck industry really should go into mourning over the Interstate Commerce Commission's refusal to give the railroads a 15 per cent increase in freight rates. In so doing, the commission was actually kind to the railroads—although they wouldn't admit it—and hard on the truck industry.

While the rate hearings were in progress, economists and shippers made it plain to the commission that the increase, if granted, would result in wholesale diversion of freight traffic to transportation agencies competing with the railroads—motor trucks, waterways, etc. The commissioners were particularly impressed with the motor truck. So impressed, in fact, that in their report they declared the railroads greatly underrated the extent and potentialities of truck competition. The commissioners had this to say:

"Movement by truck has been principally effective on less-than-carload traffic and relatively short hauls, but it is continually extending to more and more traffic and for longer distances, as trucks and trailers are enlarged and highways improved. At present, it is aided by prevailing low prices for gasoline and rubber and the oversupply of labor. The carriers introduced evidence to show that it would be feasible for the trucks to divert only a comparatively small amount of additional tonnage, even if rates were increased. But, without exaggerating the menace of this form of competition, we are convinced that the carriers have underrated it, and that its possibilities are materially greater than they are prepared to concede."

Saw Need For 400,000 Trucks

Granting that the economists and shippers were correct in their assertions that increased rail rates would divert traffic to motor trucks, what benefits did the motor truck industry stand to inherit? The maximum effect, pro-

vided diversion to trucks completely nullified a 15 per cent increase, would have been the sale of 400,000 trucks, representing an investment of \$1,200,000,000. (Now you see why we ought to wear crepe on our sleeves.) These aren't our statistics; they belong to Dr. Julius H. Parmelee, director of the Bureau of Railway Economics. The 400,000 trucks in order to handle the additional diversion of 27 billion ton-miles of freight, he figured, might range in capacity from two tons up, but would have to average a rated capacity of 3.6 tons.

The doctor's figures shape up about as presentably as a 200-lb. burlesque soubrette. He overlooks the existence of trailers and the quite common tendency to overload. But while recognition of these factors would alter his 400,000 figure, his estimate of the \$1,200,000,000 investment might hold in view of the fact that he figured the average price of a 3.6-ton rated capacity truck at only \$3,000. The average 3½-ton chassis, without body, sells well above that price.

600 Millions 300 Millions

Of course, only a violent optimist fit for a strait-jacket

would expect trucks to completely nullify a 15 per cent increase, but indulgence in more conservative speculation still gives us the ethereal sensations that opium eaters write about. For instance, if trucks took 50 per cent of Dr. Parmelee's ton-mile calculation it would still represent \$600,000,000; and if only 25 per cent, a wholesome, not-to-be-nose-thumbed \$300,000,000.

Oh, well, the railroads didn't get their 15 per cent, so let's come down to earth. Yes, and wait for the next move in the railroad game. Back in September we said they wouldn't get the 15 per cent increase; that what they were after chiefly was a readjustment of wage scales. If you've been watching the daily newspapers, you know that the tom-toms have begun to sound the attack.—G.T.H.



Light Delivery Panel Truck—Disc wheels. Price including body \$555. 1½-Ton Panel Truck. Disc wheels. Price including body \$760

Chevrolet six-cylinder trucks cost less for gas, less for oil, less for upkeep

"Our gas consumption has been lower on the Chevrolet six-cylinder truck than any other type of truck we have used. Our oil account has decreased over 40%. Our repairs have been insignificant."—Savannah Georgia Laundry, Savannah, Ga.

"I have driven my Chevrolet truck 80,000 miles, and as yet it has not been necessary to have a major repair made to the motor."—R. R. Stanley, Dallas, Texas

"Hundreds of stops and starts don't help gasoline mileage any, but we find that Chevrolet gives better mileage under these conditions than any other make of car or truck."
—Castberg Creamery, Powell, Wyoming

The files of the Chevrolet Motor Company and its dealers contain letters from owners in every hauling and delivery field. And almost without exception, these letters confirm the established fact that Chevrolet six-cylinder trucks cost *less* for gas, *less* for oil and *less* for upkeep. One typical Chevrolet model, with many unusual economy-records to its credit, is the six-cylinder half-ton panel truck, illustrated above.

Many leading fleet users, as well as grocers, florists, dry cleaners and hundreds of other retail establishments, are buying this big Chevrolet delivery unit in constantly growing numbers.

They are proving, week after week, the dollars-and-cents value of

such economy-features as the fast, smooth, 50-horsepower 6-cylinder engine—the efficient carburetion, cooling and lubrication systems—the long rugged chassis—the full-capacity Chevrolet-built body. Their records show that no other truck of this type is so economical on gas, oil, tires, upkeep and service. And, like all Chevrolet models, this truck is one of the

lowest priced in the commercial car market—\$555,* complete with the handsome Chevrolet-built body. Value like this has naturally won the Chevrolet line wide and favorable recognition among truck users as the logical means to reduce transportation costs.

COMMERCIAL CHASSIS.....**\$355**

1½-Ton Chassis with 131" wheelbase (Dual wheels optional \$25 extra).....**\$520**

1½-Ton Chassis with 157" wheelbase (Dual wheels standard).....**\$590**

*All chassis prices f. o. b. Flint, Mich. All truck body prices f. o. b. Indianapolis, Ind. Special equipment extra. Low delivered prices and easy C. M. A. C. terms. Chevrolet Motor Company, Detroit, Michigan, Division of General Motors.

CHEVROLET SIX CYLINDER TRUCKS

For Lowest Transportation Cost



F RONT END JOBS

WHEN wheels have too much toe-in they slip as they rotate resulting in excessive tire wear; when there is insufficient toe-in hard steering results as well as wandering and tire wear; reduced caster causes wandering and increases toe-in; excessive caster produces shimmy and brings vehicles out of turns into the straight-ahead position too violently. These briefly are some of the effects of misalignment in the front ends of vehicles. There are more, but these suffice to show the importance of the front end alignment job.

Shops desiring to handle such jobs must first understand caster, camber and toe-in and the principles underlying their relation to each other, and secondly have the necessary instruments for checking and correcting.

The simplest part about the front-end alignment job is determination of the fact that the job is needed. The clues which are readily observed are hard steering, shimmy and excessive and uneven tire wear. But here the simplicity ends. Location of the

Conserve Tires, Ease Steering and Reduce Wandering. Inspection Is Major Part of Job

cause is the problem. While it is possible to check a front axle and its wheels without special equipment, the work can be done more quickly and accurately with gages designed to measure toe-in, camber and caster and devices which will disclose a bent frame and shifted front and rear axles. A complete front-end job necessitates checking of all these points because all are related to each other and changing one often affects the others.

To show how camber, toe-in and caster are related, we'll start with camber and describe what it is and what it does, which will reveal to the reader the elements that must be considered in conducting an inspection.

Cambered wheels are tilted out at the top with the result that the distance between the tops of the two front tires is greater than the distance between the bottoms. Because type of tire affects proper understanding of the purpose of camber we will first consider camber in connection with high-pressure tires, then balloons. The reason for the 4 or 5 deg. camber of wheels equipped with high-pressure tires is to obtain easy steering through center-point steering and to reduce side thrust on the king pins.

During the height of high-pressure tire use vertical king pins were the rule (some, however, are still straight). Then with wheels cambered, a line drawn through the king pin would strike the ground at approximately the same point as the center of the tire contact on the ground. This is the condition known as center-point steering, and the further these points are apart, the more difficult it is to steer the vehicle.

When the tire contacts the ground



"outside" the point where the center line of the king pin would strike the ground, there would be a force (when the truck is driven) tending to make the wheels toe out. When the tire contacts the ground "inside" the point there would be a force which would tend to increase the amount of toe-in. To turn the wheels under either of the conditions requires effort. Trucks are so designed that the tire center contacts the ground slightly "outside" the center line of the king pin so as to increase steering ability.

Now as to side thrust on the king pins. The weight of the truck transmitted to the ground through the wheels will tend to pull the wheels in at the top, resulting in side thrust on the king pins. This side thrust will be a maximum with vertical king pins and no camber in the wheels and is reduced to a minimum when the tires contact the ground at the same point as the center line of the king pins.

Shop Equipment to Do the Job:

General:	Frame gages
Lifts	Squares
Ramps	Levels
Jacks	Scales
Inspection:	Tapes
Drive-on plates	Repair:
"Weegees" boards	Axle presses
Wheel balancers	Hydraulic jacks
Toe-in gages	Clamps
Camber gages	Frame straighteners
Caster gages	Hand tools

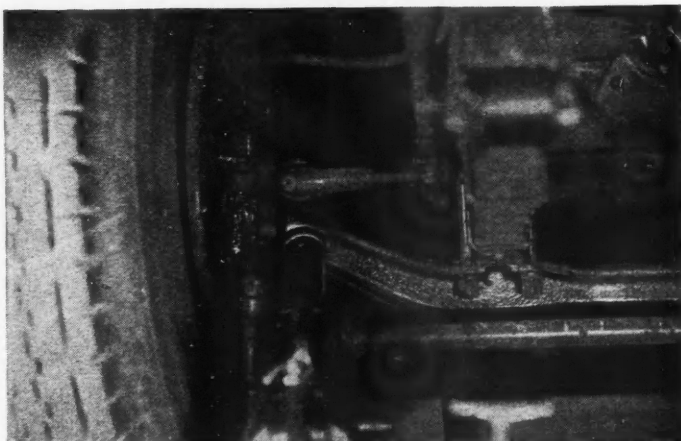
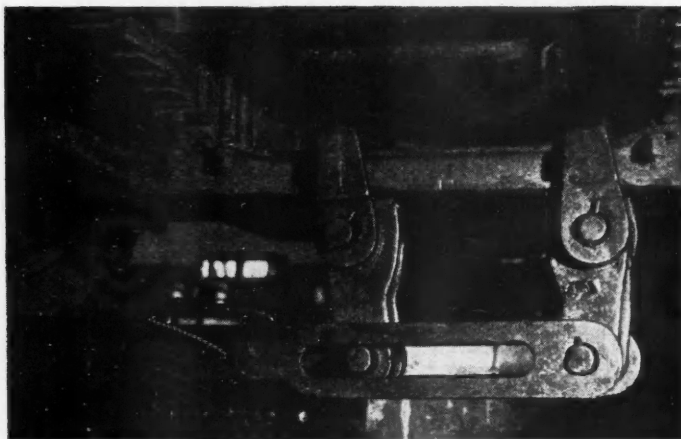
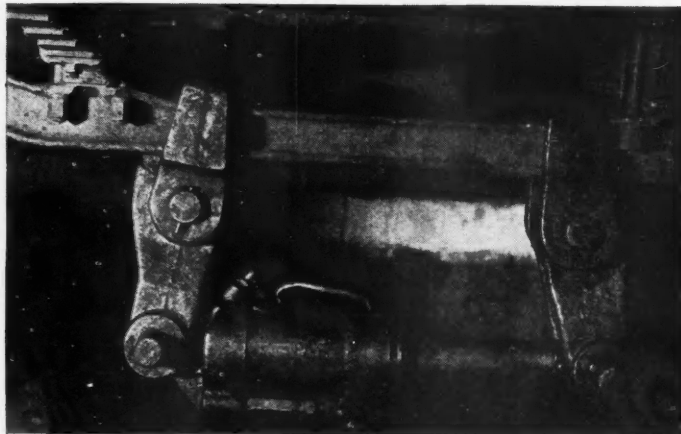
Reducing this side thrust makes the truck steer easier.

When balloon tires and four-wheel brakes were introduced difficulties arose, which resulted in shimmy and rapid tire wear. Because a balloon tire has a much greater area in contact with the ground than a high pressure tire scrubbing action (pulling of tire on one edge and dragging

SHACKLE SHIMMY



Top page 32: Drive-over type of alignment indicator. As wheels pass over the plates of this tester excessive or insufficient toe-in is recorded in number of feet side-slip per mile on the meter. Above: Camber is outward inclination of wheel and amount can be measured by instruments of this type. Readings are in degrees



Axle presses greatly simplify front end work. To reduce camber the press is assembled on the axle as shown in the top view. The hydraulic jack between forces the axle ends upward. To increase camber the force is reversed by assembling the press as shown in center illustration. The jack placed in a link between the left pin and the pin of the left press exerts a force toward the right. How the press is used to take out a bend in the front axle between the spring pad and axle end by pressing forward is shown in the lower view

on the other) of the tire is accentuated. When a wheel is cambered the radius of the outer edge of the tire is less than the inner edge. As a result, when the truck is driven, the edge with the smaller radius will try to turn oftener, for each mile, than the larger radius of the inner edge. Balloons with their lower pressures and larger ground contact areas increase the difference between these two radii.

Reducing the amount of camber overcame this difficulty, but with vertical king pins hard steering resulted. This led to development of the inclined king pin. In this design the wheel is given only one or two degrees of camber, but the top

FRONT END JOBS

SHACKLE SHIMMY

of the king pin is tilted away from the wheel so that its center line will intersect near the center of tire contact. Many mechanics, when describing this design, say that the camber was taken out of the wheels and placed in the king pins.

An interesting effect of the inclined king pin is that it tends to keep the wheels in the straight-ahead position and in this aids caster. It does this because the spindle falls or rises when swung from the straight-ahead position, which action the weight of the truck resists.

The purpose of toe-in is to reduce tire wear and make the vehicle easier to steer. There are in general two explanations as to what toe-in actually accomplishes. The first and more common is that when a vehicle is driven the tendency is to force the wheels apart at front. Toeing-in keeps the wheels parallel when the vehicle is moving, besides taking care of any springing or wear in the steering arms and tie rod. The other explanation is based on the idea that when a wheel is tilted (cambered) it will tend to fall outward and the wheels are toed-in to overcome this tendency.

The purpose of caster is to keep automatically the wheels in the straight-ahead position. This effect is produced by tilting the top of the axle backward. Before the adoption of the inclined king pin caster was set about 5 deg. but this has been decreased to 1 to 2 deg. because inclined king pins aid the caster effect. Insufficient caster will cause the vehicle to wander and requires constant attention of the driver, while excessive caster makes steering difficult—turns are resisted and returns to straight-ahead positions are violent.

Theoretically, lines drawn through the center of the king pins and the end of each steering arm should cross each other midway between the chassis side rails. According to the Ackerman principle, this point should be at the center of the rear axle, but on present-day vehicles this point is generally in front of the rear axle.

Front wheels are toed-in in the straight-ahead position, but on turns the wheels toe out, and it is the angle and length of the steering arms that control the amount of toe-out on curves. This is necessary so that all the wheels will be turning about the same point. Naturally, if one of the steering arms is bent, this toe-out will be incorrect, the car will steer hard in one direction or the other.

A mechanic not experienced with front-wheel alignment will often attempt to correct for a bent steering arm by adjusting the tie rod. This will correct the toe-in for the straight-ahead position only, and the *only* way to do the job is to bend the steering arms or install new ones. Incidentally, all manufacturers advise that front axle parts should be bent cold, as heating will weaken them as much as 50 per cent.

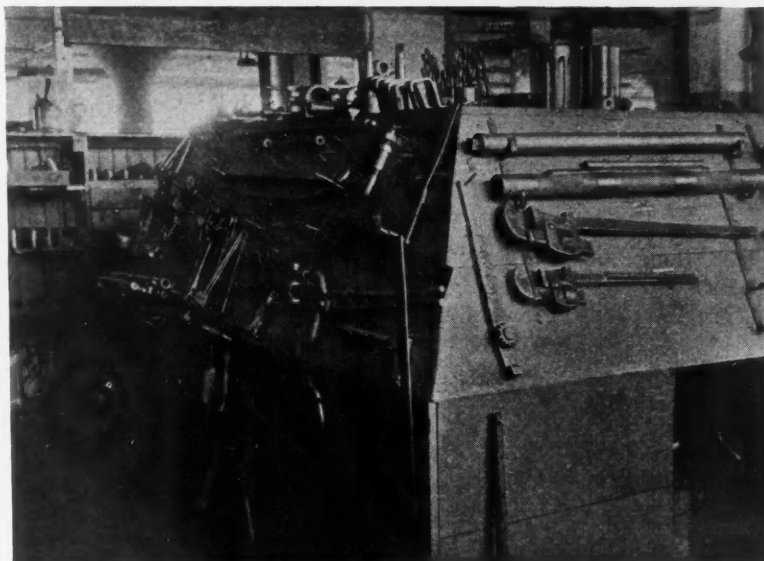
Misalignment anywhere in the front end may be the cause for any of the many troubles listed earlier in this article. When any of these troubles indicative of front misalignment becomes annoying the trouble should be located immediately and corrected, otherwise the condition will become worse, excessive wear will result and broken parts may lead to disaster. All kinds of instruments are on the market for readily checking camber, toe-in and caster against the standards established by the truck makers. Charts and specifications

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The four sides and top of this stand equipped with hooks and hold-on irons are used for the safe-keeping and ready availability of tools, large and small

Stockroom Equipment:

Bins:	Stands
Fixed, sectional	Hangers
Fixed, adjustable	Trays
Portable	Brackets
Racks:	Hooks
Horizontal	Closets
Vertical	Shelves
A-frame	Tool board
Inclined	Counter
Compartments:	Window
Small	Screen
Large	Brass checks
Flat	



STOCKROOM FIXTURES ARE SILENT WORKERS

MONEY can be lost in the stockroom and conversely it can be saved. While efficiency in the stockroom was always regarded as highly important in well regulated repair shops the pressure of the times for retrenchment wherever possible has made stockroom efficiency imperative today. Managements combing their organizations in search for savings have not overlooked the parts inventory. Many establishments have cut this down to the minimum, yet still more savings can be effected by rearranging stockroom fixtures and general layout not only to fit the changed condition of curtailed inventories, but to save mechanic time, prevent damage to finished surfaces of parts as well as to delicate parts and to protect expensive tools against injury.

With proper bins, racks and stands and a little common sense an ideal stockroom layout and system can be readily devised. Plan of layout should be

based on four fundamental points, namely: (1) assurance that a sufficient supply of stock is always available; (2) the expeditious furnishing of part or tool to mechanic on demand; (3) protective storage of part and tool; and (4) checking system for tools.

The proper number and sizes of bins are, of course, essential in forming a smooth working inventory system. Various systems of stocking parts are employed. The number and alphabet method of listing in truck model groups or major part groups is one form. However, whatever the system, a logical sequence and easily followed arrangement of parts are essential. One way of bringing this about is through the judicious use of bin space. A flagrant and not uncommon misuse of valuable space is the storing of six or seven special bolts, bushings, or what not in a bin that could carry two or three gross of these parts. Bins should fit the needs of the parts they are to carry. Proper consideration of these physical requirements of a storeroom simplifies the maintaining of a complete parts inventory and saves mechanic

time by eliminating the wasteful search for missing or misplaced parts.

Ingenuity has an excellent opportunity to demonstrate itself in the stockroom. The safe-keeping of delicate, bulky or awkward shaped parts and tools demands no little creative imagination from the storekeeper or shop superintendent. That shops have not been wanting in this ability is indicated by the fact that equipment manufacturers have frequently capitalized the ideas and home-made devices originating in shops, thereby making them available to other shops, cheaply and in more substantial form.

These devices take the form of racks, stands, compartments, etc., specially designed for a specific part or tool. Their purpose is accessibility, portability, space economy and safe-keeping. If not too large or heavy, racks, stands and bins are equipped with casters.

Radiators are heavy and large and can easily be stored on horizontal racks. Some provide space for as many as seven. They are supported on side rails of racks by their

TURN TO PAGE 43, PLEASE



The board and brass check system of keeping track of tools saves time and tools. Valuable tools are locked in closet which also serves as table

Crushed Fenders Are Saved From Junk Piles By Ironing Out Bumps and Accordion Pleats With Modern Hand and Power Tools

Right: Three finishing-up operations. Solder and gas flame are employed for closing small tears and filling small hammer dents. After soldering the surface is touched up with a sander. Small dings and irregularities often can be worked out with files. Files adjustable to various contours greatly simplify this operation

FENDER MASSAGING

CROOKED fenders get another chance today. They don't end up in the junk heap as much as formerly. The experience of fender defenders has proved that it pays to extend fender usefulness by straightening them out. Modern methods and equipment have made rehabilitation possible and in most cases at prices much under the cost of new fenders, which of course is money in the pocket for service shops making such work a part of their regular service. Profit per job is very substantial and there are plenty of jobs—with highways crowded as they are today it is a pretty tough proposition to keep fenders from going wrong.

Repairs are accomplished with hand tools made for the purpose. This equipment is relatively inexpensive, and quite contrary to the opinion of many, who hesitate to take on this work, no great amount of skill is required. By following out a few simple instructions and spending a few hours on experimental bumping the ability to perform can be acquired by almost anyone.

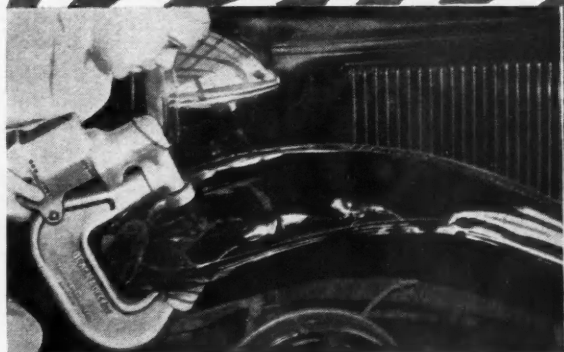
The first thing to be done on a fender job is to remove the wheel. This facilitates the work. Next determine from which side the major portion of the bump was made because removal op-

Shop Equipment to Do the Job:

Electric straighteners	Fender jacks
Rollers	Shrinking tools
Dolly blocks	Electric sanders
Spoons	Welding outfit
Hammers:	Sand bags
Bumping	Mallets
Ding	Chisels
Half	Shears
Flanging	Snips
Flexible files	Clamps
Adjustable files	Emery cloth
Bead pliers	Cable
	Timbers

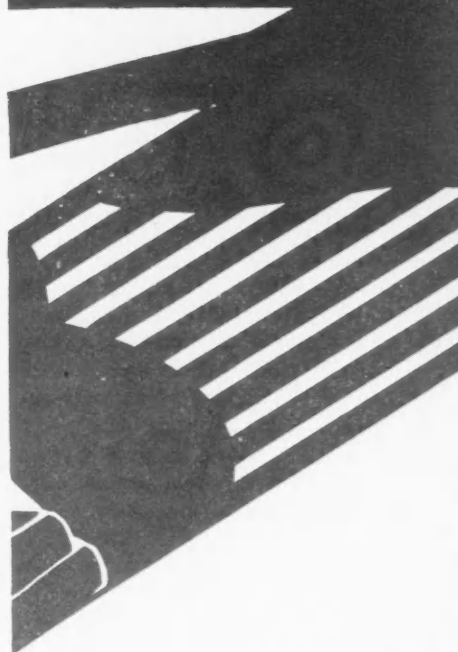


Electric fender straighteners (left) and fender rollers (right) speed operations, save money and in many cases do better jobs





FLATTENS WRINKLES



later. In this initial operation care should be exercised not to bump the metal above its original surface. If dents are small they can be quickly and easily removed with a fender roller.

The next step is to pull the flange back into shape with a bending bar or fender pliers. Should the wire bead in the flange be broken the metal around it must first be pressed into position before welding the break. A special type of pliers is available for this purpose. The job can also be accomplished quickly and well with an electric fender straightener, as it is equipped with dies to fit the shape of the flange bead.

Fenders out of alignment are brought back into their original form with the use of fender jacks similar to that shown in the illustration. With them fenders can be pushed and pulled until restored to their proper contour. They also are helpful in holding fenders to their proper shape while welding and bumping out dents. When rough bumping, aligning and welding operations are complete the fender is ready for the removal of small dents

or rough spots. The fender roller or electric fender straightener is very helpful for this purpose. However, if these power devices are not available, the work may be done with the ordinary hand-bumping tools by using a little care. More time, of course, will be required.

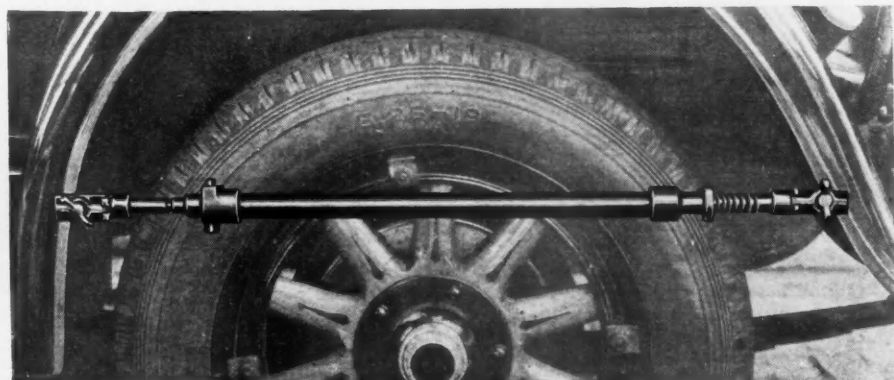
Fender rollers are easy to handle after the trick of operation is once acquired. The secret of success is proper clearance between rollers and correct angle for holding the tool. With rollers adjusted loosely this tool should be held at an angle and rolled back and forth in such a manner that the wide roller will make a support over a large area while the smaller roller will cover a lesser area and thus lift the metal up to its original position.

Operation of the electric fender straightener is relatively simple. Dents are removed and beads and moldings restored by installing proper dies in the tools and moving it over the damaged surface. The tool is equipped with different length arms so that dents some distance from the edge may be reached and with dies for shaping almost any desired contour including dents over fender irons or other difficult places.

When using hand tools there are certain fundamental elements to bear in mind, principally that several light blows are better than a few hard blows; that the dolly block used should always fit the curvature of the surface; that the dolly block and the face

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Fender jacks save time when pushing and pulling fenders into shape and ease work by holding them in position for other operations



operations are performed on the opposite side.

If the fender is badly crushed the first tool needed in some cases is a bending tool to pull out the heavy folds; in other cases a roughing hammer may be preferable to start the work. With the roughing hammer the surface can be pushed back almost to its original form. Only a few medium blows struck on the deepest part of the bump are necessary. Remaining smaller bumps are left until

FLUSHING WASHES OUT COOLING CARES

CONTINUED FROM PAGE 29

up through radiator and out overflow pipe as illustrated. Impulse stream of water by applying air jack to valve at short intervals until water runs clear.

Disconnect the flushing tool from bottom of radiator and apply to top of block. Flush down through block and out through lower hose opening. Use full air-pressure impulse at intervals. Flush until water runs clear.

This is the most effective known method of quick maintenance cleaning. If a radiator has been too long neglected it may be too badly clogged to respond to this treatment, in which case the radiator must be turned over to a shop equipped to provide corrective service. The frequency with which this cleaning job should be done depends almost entirely on the number of miles the truck is driven in a given period of time. The actual age of the vehicle is hardly a factor. The more miles it is operated the more proportionate amount of attention is necessary. To keep cooling systems entirely clean flushing about every 5000 miles should prove sufficient—never should the operation be delayed more than 8000 miles.

It has been conclusively proved by those who have had a vital interest in this research, that truck cleaning methods must be vigorous to prove effective and the method outlined in this article has been tried time after time in cooling systems in all stages of disrepair with almost 100 per cent satisfactory results.

After the system is cleaned, the following points should carefully be inspected:

Hose Clamps—Replace bent or damaged clamps and tighten. Although some servicemen use shellac or grease on the hose nipples under the clamps, this is not really necessary if the rubber is being clamped to a clean-surface nipple. The less sticky material used at these points the better, since some of it will find its way into the cooling system.

Draincocks—Be sure draincocks are tight.

Cylinder Heads—Cylinder head bolts must be tight to prevent the leakage of burned gas into the cooling system as well as the passage of water into the cylinders. The presence of exhaust gas in the cooling system will result in acid products which greatly accelerate the formation of rust and hasten clogging of the cool-

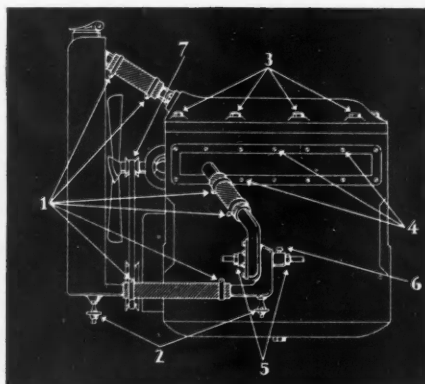
ing system. This is very important; head bolts must be tight.

Side Plate Bolts—Side plate leakage is a factor when anti-freeze is used, since much anti-freeze can be lost at this point. Side plates are sometimes made of such light gage stock that expansion and contraction keeps them always loose. Sometimes narrow steel strips of heavy gage drilled to match the bolt holes and bolted around the outside of the plates will be necessary to prevent leakage; usually, however, a new gasket (other than cork) will stop leakage.

Water Pump—Water pumps are one of the greatest sources of annoyance in the cooling system, but there is no doubt at all that much of the trouble is brought about through inefficient or insufficient maintenance of this highly important unit. Some pumps, because of their design, require more frequent repacking than others. Servicemen must carefully mark the pumps that need frequent attention and repack them. This will prove to be the cheapest maintenance in the long run. Frequent tightening of gland nuts will result in scored shafts, and scored shafts must be replaced. It is cheaper to repack at regular intervals than to replace shafts and bearings frequently.

Present service routine in many garages calls for frequent pump lubrication, but this practice, instead of preventing trouble, is directly responsible for much overheating. Much of the oil, or grease, that is forced into water pump bearings every night goes through into the cooling system, there to mix with rust and lodge in the radiator and water passages, contributing to clogging and overheating.

Every truck water pump should be equipped on delivery with either a



To prevent cooling system leakage, tighten hose clamps (1), drain-cocks (2), cylinder head (3) and side plate (4) bolts, water pump packing glands (5), grease cups or grease fittings on water pump (6) and fan belt (7)

turn-down grease cup or a cup of the Lunkenheimer type and nothing but water-proof grease should ever be used in it. It is a simple changeover and one that will save pump bearings and reduce cooling system charges.

If anti-freeze is to be used in the truck, proper pump packing and lubrication along the lines indicated at the first of the season will more than pay for themselves in anti-freeze saved and grief avoided.

Fan Belt—Oil, grease, and wear combine to ruin the fan belt and the effect of these destructive agents is usually quite apparent. However, cases of persistent overheating in commercial vehicles have been traced to a not so apparent trouble in the fan assembly—wear of the "V" pulley. In some cases the sides of the "V" have been known to wear slightly concave and, as a result, the belt lifts at higher speed so that belt traction on the pulley is materially reduced, with resulting slowness in the fan. Careful inspection is needed to reveal a situation of this nature.

The procedure just outlined is the most effective cooling system tuning operation so far developed as the result of two years' research on the subject. It is felt that if operators would take each truck in turn and put it through this hour's cooling system overhaul, the cost would be paid many times over in more efficient operation.

Proper servicing, as outlined, also is imperative if anti-freeze is to be used reliably and economically. Whether volatile fluids or non-evaporating anti-freezes are used, some protection may be lost through carelessness in the matter of leakage, overflow (boiling, over-filling), additions of water—expansion, evaporation.

Leakage—Loss of protection occurs most rapidly because of leaks. Under the conditions of operation encountered in truck service, radiator leaks especially are likely to occur. Hose connection and gasket leaks should not open up, even under severe road shock, if the joints are tightened sufficiently after servicing. Road shock does set up severe stresses in the radiator, especially in the corners of the core, at the joints between the upper can and the core, and in the bottom of the lower can. This conclusion was drawn because it is at these points that radiator leaks usually appear. Another common fault noticed is the prevalence of broken side support brackets, the fracture usually occurring at soldered joints. Pump leaks very often account for slow loss of solution.

Overflow: Boiling—Losses due to boiling over the overflow are en-

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CUMULATIVE

Year after year certain leading manufacturers of cars, buses, trucks, have used Lockheed Hydraulic Brakes. And each succeeding year has added new enthusiasts to the army of owners who want and GET Lockheed performance—who know there's only one way to get it.

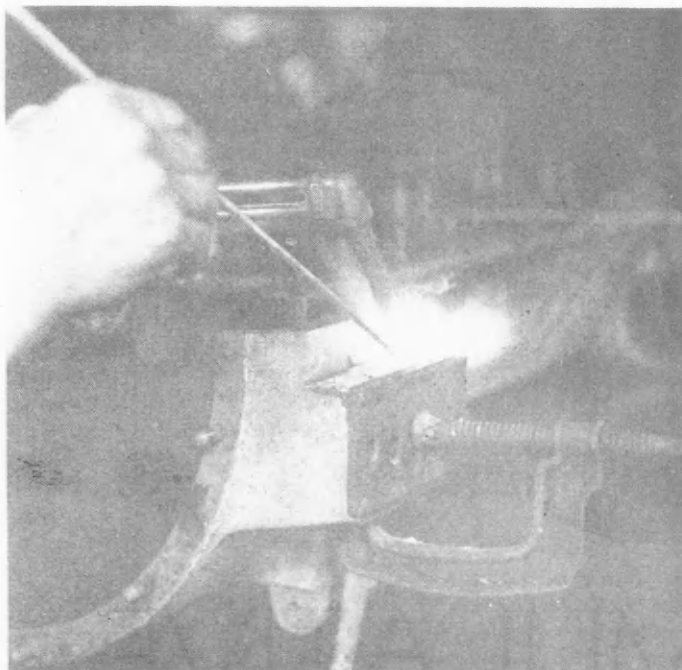
Is not this cumulative enthusiasm, this immense and active preference, a good thing to have on your side? It takes no account of prices and costs. The fact that Lockheeds are higher priced is, to those educated by Lockheed performance, just another clinching evidence of Lockheed superiority.

HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN, U. S. A.

LOCKHEED HYDRAULIC

Four **BRAKES** *Wheel*

RIVETS AND WELDS ARE JOINERS AND SAVIORS



Shop Equipment to do the Job: Welding—arc and gas welders, welding table, preheating furnace, blow and cutting torches, clamps, trestles, skids, igniters, goggles, gloves, shields. Riveting—compressor, pneumatic hammer, electric furnace, forge, hold-on irons, tongs, drills, hammers

THE joining together of metals is a common and everyday requirement in truck repair work. There are three ways of doing it—riveting, welding, or both.

The remarkable advance achieved in the art of metal joining, be it in the repair of broken castings, cracked parts, newly assembled sections, reinforced members, or built-up and machined-down parts, is responsible for the saving of large sums of money by the reduction of scrapped parts and by the cutting down of labor time. It is really amazing how much money fleet and dealer shops actually can save by salvaging parts. Some shops, which have built a reputation for themselves, are not infrequently astonished at the confidence customers place in their ability to do things in this department. Nothing seems too difficult or complex to some customers, and the beautiful part of it is, they are rarely disappointed.

Shops equipped to meet these increasing demands with proper equipment and with men experienced in the work are making money. Not only are they in a position to bring customers economies by salvaging parts and saving time, but are in line to turn over a pretty penny for themselves as well. These same advantages also apply to fleet shops. Shops not

Welding saves parts from the scrap heap. The worn leg of this aluminum crankcase is being built up with an acetylene torch to be machined later

so equipped are compelled to turn to outside specialists, thereby losing time, sacrificing profits and in many cases suffering customers to replace parts which otherwise could be salvaged and used.

Riveting, the successor to the nut-and-bolt method of bringing two pieces of metal together, today has a close associate in welding. While welding can replace riveting in practically all joining work, there are a number of jobs where the latter method is preferred. Many shops use the riveting method in the repair of frames; securing cross-members, brackets, hooks, spare tire carriers, etc.; fitting new parts on bodies, etc. The weld-

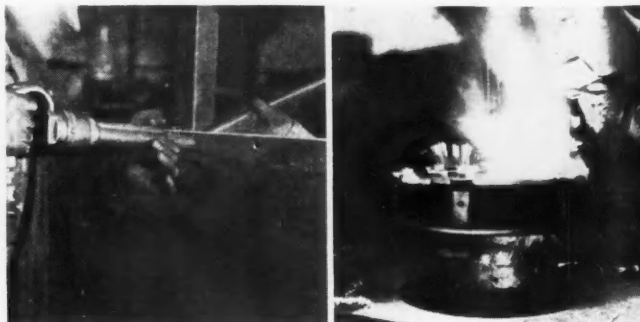
ing method, of course, can be and is used on these jobs. In fact, some shops combine both methods, welding, for example, rivet seams and channel liners. There is one job, however, that is exclusively a rivet job and that is the cold or hot riveting of ring gears to differential housings.

Equipment carried for riveting depends largely on the volume of such work passing through the shop. In some shops the amount is small, in which case the work is done by hand, and equipment consists of a hammer, hold-on iron, forge and drill. But in shops where a large quantity of work is done a full line of power, as well as hand tools, is the order, and includes such items as electric furnace, pneumatic hammer, hold-on irons, drills and rivet tongs. As speed is an important factor in hot riveting jobs, a crew of three men are generally worked on a job—one to swing the rivets, another to handle the hammer, and the third to back up with a hold-on iron.

Welding is indispensable in the truck repair shop today and is used to serve in a multiplicity of jobs. In addition to the services mentioned earlier, welding makes practical alterations in sizes of metal parts, such as wheel cutdowns; saves time without need of removing from chassis; simplifies stiffing operations, and pro-

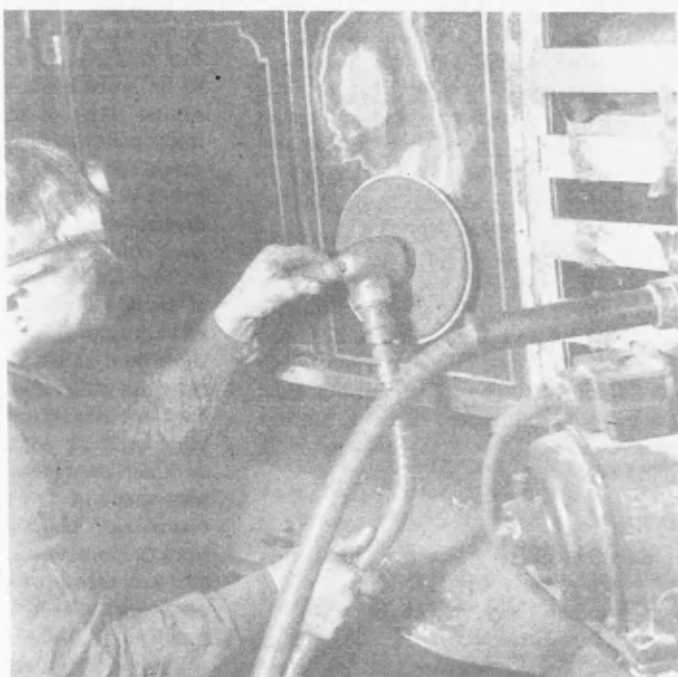
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Right: When hot riveting, one man operates the pneumatic hammer while another backs up with a hold-on iron. Far right: Using an arc welder in cutting down a wheel for changing over from solid to pneumatic tires



LICKING METAL BODY PANELS INTO SHAPE

Shop Equipment to do the job: Metal tools—dolly blocks, spoons, bumping and ding hammers, shrinking tools, rollers, hinge straighteners, mallets, shears, snips, flexible files, sanders, emery cloth, welding outfit; clamps; Glass tools; Upholstery tools; Wood-working tools, and Painting equipment



Smoothing down irregularities with a power sander after filling a small tear and several slight dings with solder

ANY activity which brings a good return for money and effort expended will soon find an army of adherents which will exploit it for all it is worth. In the automotive field there are several very excellent examples of this fact. Car washing and chassis lubrication service a few years ago took the country by storm. Capital came from every quarter and quick-service stations soon spotted the country. This profitable business, however, was lost to many dealers because they failed either to perceive or to properly provide for the demand.

Now another department of profitable automotive business has come to the forefront. It is body and cab maintenance. Will the dealer again play possum and permit the outsider to step in and take away a lucrative department of automotive business?

Not so long ago body and cab repair work was considered too trivial to engage the serious attention of a busy shop, but today certain changes and developments have made it an important and profitable part of the automotive repair business. Probably the factor that has contributed mostly to the growing regard for this business is improved truck design and engineering, which have brought about a material reduction in the number of major engine and other chassis repair jobs and have as a consequence cut into the amount of work turned out by

shops. Body work can replace some of this loss.

In the body building trend of truck manufacturers can be seen another important reason why the body repair department of dealer shops is perking up. Truck manufacturers in entering this field have incurred another service obligation, an obligation that can best be met through their existing organizations, which they are doing. Body parts and supplies are available to the dealers of such makers. All that is needed by these dealers is the equipment necessary for the work and will to do.

Among other reasons adding to the growing interest in body maintenance

are: de luxe and attractive appearance of modern commercial vehicles and increasing operator demand that they be kept so; individual jobs show profits for shops out of proportion to the time expended; investment in tools and equipment is relatively small; the field for body repair business at present is not very competitive; the work can be seen and appreciated by the customer, which, of course, results in greater satisfaction and less comebacks; there is an abundance of body work due to existing crowded traffic conditions, and, finally, body work not being seasonal does not peak up, but is distributed throughout the year.

Maintenance of bodies and cabs involving such jobs as unwrinkling and replacing metal panels, blending finishes, fixing broken wooden parts, removing and replacing cracked glass, repairing upholstery and subduing squeaks and rattles call for the art of sheet-metal working, matching colors, painting, carpentry, blacksmithing, upholstery, glass fitting and squeak chasing. While many of these jobs can be completed with ordinary shop tools, special devices are necessary in some cases. But the large majority of the specials are inexpensive and may be readily acquired.

The straightening of metal panels in cabs and delivery bodies is probably



Left: Replacement of the old panel (at right) for a new panel (at left) was considered more economical on this job on account of rack obstruction and severe tears in panel. Far left: Using a dolly block and ding hammer in bumping out dents in a door panel

the most difficult job the body repairman has to perform. It requires patience, knowledge of procedure, and skill. But with a little experience any service man who can bump out a fender satisfactorily can also bump out a damaged body panel. Panel work, of course, requires a little more care, effort and labor, but the fundamental principles are the same. Because many shops consider this work out of their field, when in fact it is in their field and represents a great opportunity for the shops, the remainder of this article will be devoted to an exposition of procedure in this department of repair work.

Panel work involves the removal of dents in wheelhouses, doors, cowl and sides. The tools used are mostly inexpensive and include bumping hammers or mallets, dollies, various sizes and shapes of spoons, adjustable files, jacks, 2 x 3s, torches, sanders, buffers and sprayers. Here is the way it is done.

Wheelhouses

Some mechanics use a light sledge to straighten by striking blows against the high point of a dent. Others use a jack with 2 x 3s, placing two short lengths against each wheelhouse, and a longer piece, with a jack, end to end, between, to force the metal back to its original position. When using this method the jack is extended slowly and the high spots of the dent are struck with a bumping hammer or mallet as the jack is raised. The job is finished by using a spoon, which, placed against the highest point of the depression, is struck by a hammer. Use of a spoon having the same curvature as the panel restores the panel to its original form without the sharp dings that would result from the use of a hammer. High spots not detectable by eye can be removed by an adjustable file.

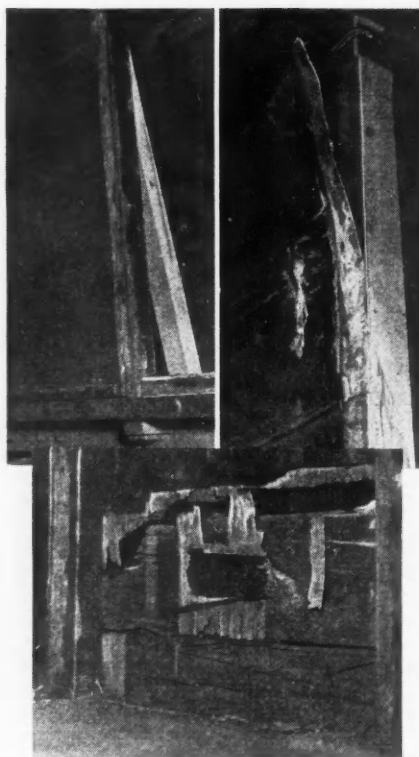
Doors

When working on a crumpled door it is advisable to detach the door and remove all trim and bracing before starting straightening operations. While the dolly and hammer may be used, in the majority of cases the work can be done best with a spoon, which, inserted through the openings of the door bracing, is pressed against the highest point of the dent. The edge of the opening may be used as a fulcrum for pressing. If construction permits the spoon may be struck with a hammer.

Sides

Before deciding what course to pursue in restoring damaged side panels

to their original condition several factors should be considered. The primary consideration is that straightening work on flat surfaces is perhaps a little more difficult than on curved surfaces, especially the shrinking operations, which are required to eliminate bulges. This difficulty, of course, increases with the size of the panel and the extent of the damage. For this reason many shops believe it to be more economical to remove and replace the damaged panel rather than attempt a time-consuming and therefore costly repair. Another factor is inside construction, such as the nature of the body framework, inside rack and post construction, design of inner wall and use of plywood or other material as a backing part of the metal. All these things are obstructions and must first be removed before the dolly and hammer method of dent removal can be employed. Obviously, it is not always practical to do this, in which event complete replacement of the panel is the only alternative. If no such obstacles present themselves and the damage is not excessive, work can be done economically with the panel in place. In some cases panels must be removed anyway for the repair, but not necessarily scrapped. For example, deep circular dents require removal of



Damaged large panels are usually replaced. The upper right view shows a severely ripped upper panel and the upper left view, a completed replacement job of a lower panel. The lower illustration shows how the plywood backing of panels is shattered when sides are caved in. After the exterior panel is replaced the inside is covered with a metal sheet attached between uprights

panel unless it is quite accessible on both sides. The dent is taken out by dolly block and bumping hammer or mallet. Tears are, of course, repaired by welding, if not too severe. Little dents in panels can often be repaired without bothering about obstructions on the other side by welding a steel hook to the deepest point of the dent and then pulling until the panel is brought back to its original form. The hook is then removed and the spot finished with an adjustable file. Small dents and even small hobs can be concealed very satisfactorily with one skilled with torch and solder work. This method is especially helpful when obstructions back the panel under repair.

Cowls

The jack with rigging again plays an important role in the straightening of cowls. When rigging up a job for this work a 2 x 3 is placed across the dash on the hood side as a base for the jack. Cables are then run through holes drilled at the necessary points in the cowl and through another 2 x 3 on the body side of the dash to distribute the pull over a larger surface. The other ends of the cables are looped over the head of the jack. To prevent the jack from creeping upward a cable may be looped around it and the engine to keep it in place. With the rigging complete the jack is then extended, pulling the cowl forward. As the jack is extended high points of the damaged cowl may be tapped with a bumping hammer until the cowl is reshaped. Small indentations and dings are removed with the use of dolly block, spoon and adjustable file.

Panel stretching as a result of straightening may be a little troublesome, especially when working on door panels where all four sides are securely attached to the door frame, but can be overcome by shrinking the panel. This is accomplished by applying heat after the panel has been straightened. If the dent is small, the panel is heated to a cherry red over a 1½-in. area. Then, as in ordinary ding work, light blows are struck around the outside circumference of the heated portion, gradually working toward the center in a circular path. The hammer, of course, is backed up with a dolly block. Larger dents are handled in sections, although, as mentioned, this process is sometimes more costly than a complete replacement of the panel in the first place. Surfaces shrunk are dressed up with a file or sander. Much shrinking work can be avoided by exercising care in ding work—the lighter the blows the less

TURN TO PAGE 43, PLEASE

STOCKROOM FIXTURES ARE SILENT WORKERS

CONTINUED FROM PAGE 35

mounting brackets or in separate sections on longitudinal base rails. Brake drums may be carried in vertical racks arranged much like a chest of drawers and taking no more floor space for storing ten than one. Supported on side angles, drums may be slid in and out like drawers. Chassis springs are stored in various manners. Some shops carry them on arms of A-frames; others place them on end in inclined racks with supporting channel bases.

Storing assembled clutch housings is a problem because they do not stack well in bins or compartments. One shop solved the problem with a rack in which the housings are placed open-end downward with clutch shafts projecting between sides of the brackets. Steering gears are awkward and are stored in special racks or suspended.

BIG EQUIPMENT IS BACKBONE OF SHOP

CONTINUED FROM PAGE 15

expeditious operations. An excellent example of efficient layout is illustrated. Equipment is laid out in an orderly manner, plenty of room is provided and work benches are lined along the window wall, furnishing good natural light. The screening in of the machine section is usually done to keep unauthorized members of the staff out for the protection of the machinery and so that machinists can work unmolested.

While machine shops need not carry all the items listed in the accompanying box to perform satisfactorily, the list is presented as an index of items that might be included. Choice depends on individual requirements.

LICKING METAL BODY PANELS INTO SHAPE

CONTINUED FROM PAGE 42

stretching. Final finishing of sheet metal repairs calls for smoothing. Portable grinders, wire brushes and buffers apply power to the undertaking. An ordinary file is useless for dressing a concave surface, but that does not prevent mechanics from filing on such inward curved surfaces. Half-round files are made for the job, and flexible files or rasps which may

be formed to the desired curvature also are used. Both types of curved files meet the need of filing a space in the center of a wide, flat sheet, as in a body panel.

FRONT END JOBS SHACKLE SHIMMY

CONTINUED FROM PAGE 34

are available for this work giving the proper measurements for total caster in degrees, axle caster (deg.), side inclination of king pin with vertical in degrees, wheel spindle camber (deg.), wheel camber one wheel (in.), wheel camber (deg.) and toe-in (in.). After determining misalignments correction may be greatly simplified by the use of special presses designed to bend the axle without removing from the truck.

While the necessity for checking caster, camber and toe-in is appreciated by most mechanics, there are other features of the steering system that are often overlooked. Among these may be included steering arms.

FENDER MASSAGING FLATTENS WRINKLES

CONTINUED FROM PAGE 37

of the ding hammer should be kept clean and that small dents sometimes may be removed without marring the surface with the hammer by wiping the surface with turpentine.

The dolly serves as an anvil for the ding hammer. It should always be placed on the side opposite the high spot of the dent and held tightly against the surface of the work while blows are struck with hammer or mallet. Dents should be worked out very carefully to avoid stretching. Badly crushed surfaces, however, will sometimes be stretched either when damaged or while being hammered. The remedy is shrinking, which is discussed fully in the article on page 41. Dents occurring over obstructions make use of dolly block impossible, but in such cases suitable-shaped spoons are inserted between the surface and the inside surface as a hammering base.

After the dents have been reduced, still existing high spots can be detected by rubbing a piece of emery cloth over the surface, using the back of the cloth against the surface and the abrasive next to the fingers. The abrasive increases the sensitivity of the fingers. Further careful bumping will remove all but the smallest of

irregularities. These tiny irregularities will be much more apparent when repainted and should therefore be removed or filled with solder. If they are very slight, a flexible file and a sander will smooth the job, but care should be used as the metal is thin and will be weakened if high ridges are removed. After filling with solder, excess can be removed with sander.

RIVETS AND WELDS ARE JOINERS AND SAVIORS

CONTINUED FROM PAGE 40

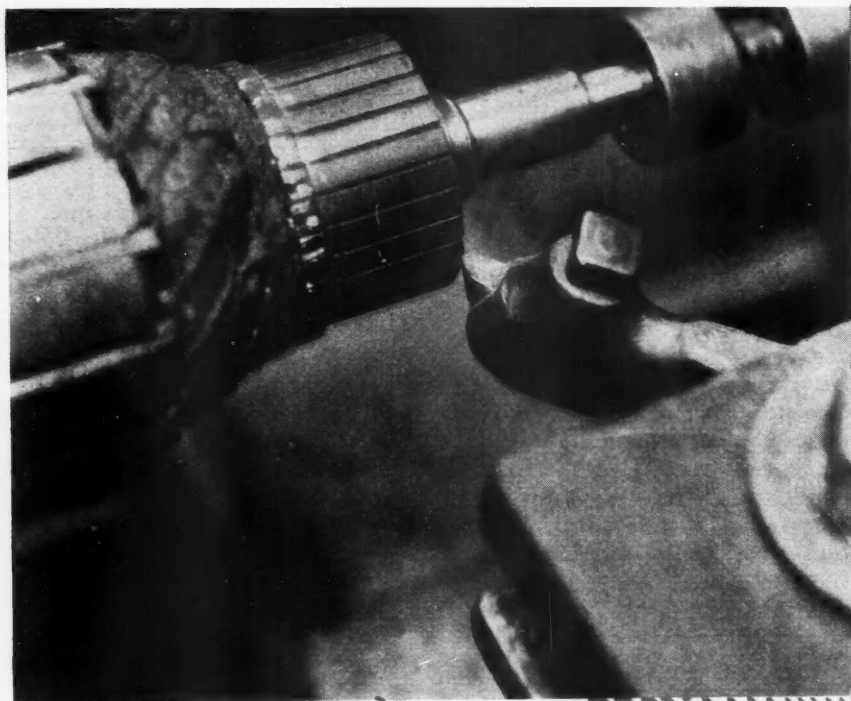
vides heat in bending operations.

There are two kinds of welding flames—electric arc and gas. Because of individual characteristics each is adapted to certain classes of work. Shops equipped with both can do better, quicker and more economical work. The electric arc is usually confined to work on steel or cast steel, in which field it is ideal. However, it can sometimes be used on cast iron when tensile strength is not essential, because the tremendous heat of the arc removes some of the original characteristics of the metal, making it brittle. For example, a cracked cast-iron water jacket can be quickly and easily repaired in the chassis, whereas the cost of removing the block and preheating it for a gas weld might cost as much as a new block. However, blocks are sometimes bronze welded in the chassis, which is a gas-welding operation.

The oxy-acetylene or gas flame has a wide scope of applications, handling successfully cast iron and non-ferrous metals such as aluminum, copper, brass, bronze, etc. Light cast steel also can be handled with gas, and is, in fact, preferred on such work as fenders, fuel tanks, panels, etc., because there is less likelihood of burning through.

Bronze welding is an exclusive branch of gas flame work. It is akin to soldering. Two parts are brought to a high temperature without melting and joined by molten bronze. While such unions do not form as strong a bond as welds, they are an excellent substitute for fusion welds when the latter cannot be employed, or is not essential. Bronze welding is used extensively on light cast-iron sections such as water jackets, without general preheating, and when there is danger of cracking, due to expansion and contraction. It is also employed when working with malleable iron, brass, bronze, copper, in fact, almost any metal except aluminum, lead and close-grained steels.

SHORT CIRCUITS TO

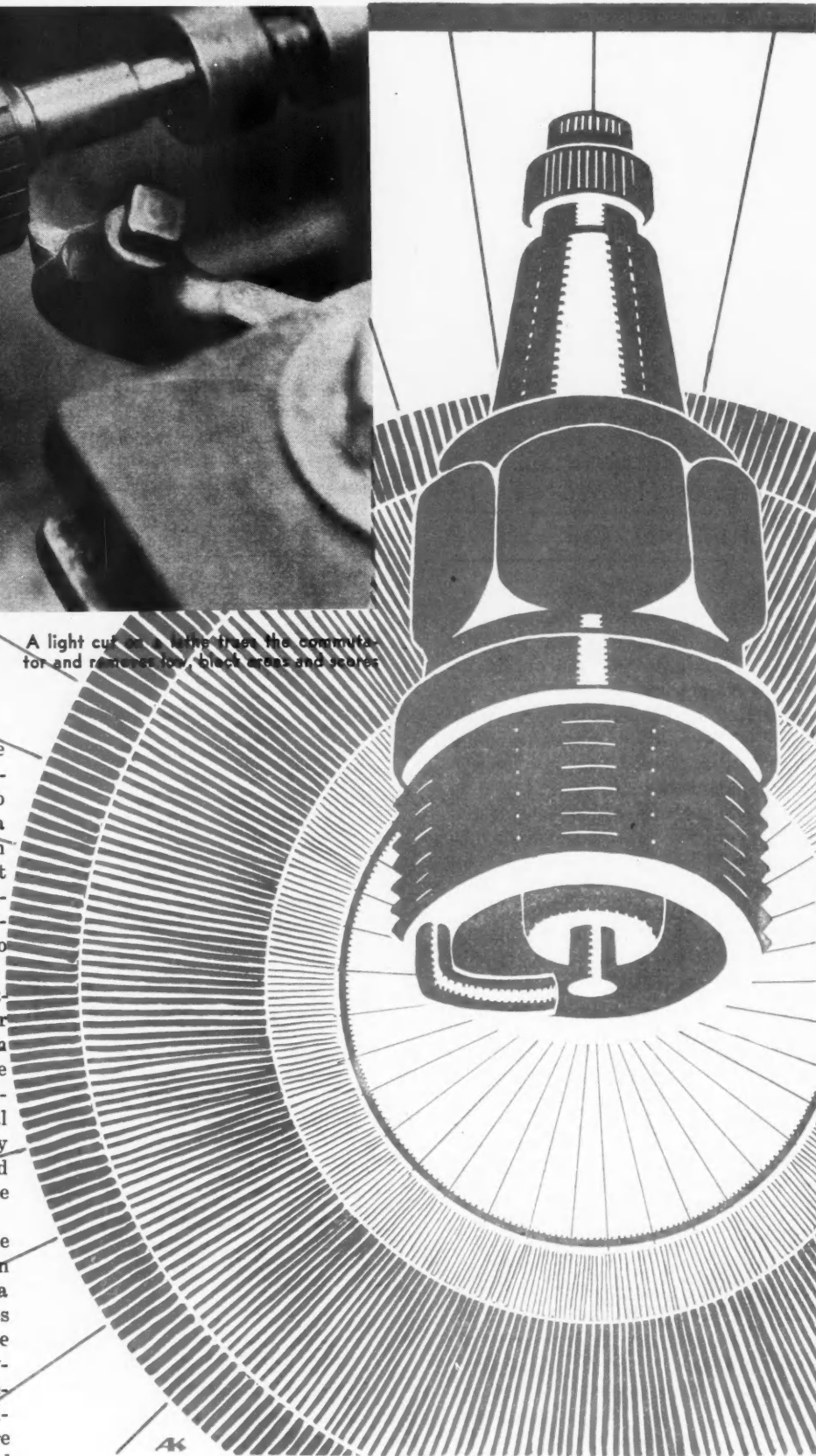


A light cut on a lathe traces the commutator and removes low, black areas and scores.

WHEN a driver steps on the starter pedal and nothing happens except a click or a grunt, another job for the electrical department of a service shop is in the making. When an engine starts to misbehave, to act "mad," is unwilling to work and ordinary remedies fail to cure, the electrical department will be expected to find a remedy.

Shooting trouble on starting, lighting and ignition systems of motor vehicles is more fascinating than cross-word puzzles, to those who like it. Taking into account the time a motor vehicle is in service, the actual percentage of electrical trouble is very small, but a shop meets all sorts and kinds of problems, seldom two alike in succession.

Faults in electrical systems may be strictly mechanical, like a broken starter spring, or electrical, as a shorted winding. Electrical troubles are not easy to diagnose or to locate because electricity is intangible. Nevertheless electricity is absolutely dependable, and its laws are known, although its nature is not. If voltage is present and a path is provided



ELECTRICAL GRIEFS

The Tracing of a Starter, Lighting or Ignition Trouble to Its Source Is Not a Knack or Mystery—It's Mostly a Matter of Equipment

through a wire the current will flow. The current plays no tricks—we know shop men will disagree, but electricity should not be blamed for mechanical shortcomings.

Some mechanics appear to play hunches when they track down electrical troubles. They find the cause on the first or second try, apparently overlooking other and more likely possibilities. They are not making wild guesses but unconsciously, perhaps, follow a process of elimination as they go.

And it is by elimination that troubles of all kinds are located in electrical systems. Some of them may be cast out at once by an experienced man. If pressing the starter pedal extinguishes the lights, they look at battery terminals and ground connection; if the engine "drops one" every once in a while, they remove the distributor cap and give the gaps the once-over.

But no amount of outside inspection will show what is wrong with the inside of a generator, and no wizard has yet appeared who can locate broken strands of wire inside insulation. For these and many other conditions mechanics, no matter how skilled, look to testing equipment for assistance.

A typical trouble-shooting job, part of which is shown in the accompanying photographs, calls into play most of the equipment in an electrical department, including the test bench and lathe.

When the starter failed to respond the mechanic lifted the seat cushion to look at the battery. The terminals were corroded but still tight. He next raised the hood and, after taking off the band, looked at the starter commutator and brushes.

The generator was next and he took

Shop Equipment to do the Job:

- Test benches
- Growlers
- Voltmeters
- Ammeters
- Volt-ammeters
- Lamp testers
- Coil testers
- Spark plug testers
- Ignition gage
- Synchronizing gage
- Remagnetizers
- Pole spreaders
- Special wrenches
- Point grinders
- Spring scales
- Undercutters
- Bench lathes
- Wire terminal tools
- Timing lights
- Battery tools
- Chargers
- Electric drill
- Bearing pullers
- Bearing pushers



Top: A discharged battery is perhaps due to the generator. The relay cut-out may fail to close, the commutator may be in bad condition, or the brushes may be worn

Center: A generator, placed in a stand and driven by an electric motor, is checked for output at specified speeds, for cut-in and cut-out speeds and for mechanical condition

Bottom: Shorts or grounds are revealed by action of meter hand when battery leads are attached to coil terminals

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The Commercial Car Journal

November, 1931



More About Restrictions

A supplementary revision of the 1931 pamphlet on "State Restrictions on Motor Vehicle Sizes, Weights and Speeds," has been published by the Motor Vehicle Conference Committee, according to R. S. Armstrong, secretary of the committee.

No and Yes Progress

At a recent meeting of the executives of the motor truck industry with the executives of the railroad industry, assembled in further attempts to solve joint problems of transportation, no report of the direction of progress was made, although it was indicated that some good was accomplished.

Plain Speaking

E. F. Loomis, speaking before associated industries of Massachusetts in Boston, said, "Financial stability of railroads does not require special taxes on other forms of transportation. Railroad problems are the result of their own management and refusal to take advantage of other forms of transportation."

Joseph Bijur

Joseph Bijur, long connected with the automotive industry as an accessory manufacturer, died in Long Island City in October. He was a graduate of Columbia and entered the electrical industry at an early age. He organized the Bijur Motor Lighting Co., which was later taken over by the General Electric Co.

Five Light Marks

A program of study of five subjects in motor transportation was mapped out by the Motor Transportation Committee of the National Electric Light Association. They are: supervision, technical, maintenance, vehicles and cost systems.

Pick-Ups Picking Up

Under an arrangement which has just been entered into by the Illinois Central Railroad and district truckers, pick-up and delivery service will be provided at an early date between Chicago and Kankakee.

Dodge Reductions

Recent price reductions of Dodge four and six cylinder $\frac{1}{2}$ -ton trucks chassis bring the list prices of these jobs to the lowest level ever reached by this company. The UF-10 $\frac{1}{2}$ -ton four-cylinder model was reduced \$60 to \$375; the six-cylinder model \$70 to \$445. Bodies and cabs have also been reduced.

A Fleet Hook-Up

Fleet sales of Dodge, De Soto, Chrysler and Plymouth cars have been added to the functions of the Fargo division of the Chrysler Corp. The division has been reorganized under the name of Chrysler Motors Fargo Division. A. C. Downey remains president.

IXB Hercules Fours

A line of small four-cylinder engines designated as the Hercules IX Series is now being manufactured by the Hercules Motors Corp. They are Models IXA, 3 x 4-in. and IXB, $3\frac{1}{4}$ x 4-in.

Wins Navy Award

The Autocar Co. has been awarded an order for 21 heavy-duty chassis by the United States Navy Department.

Big Road Money

The Secretary of Agriculture apportioned to the states \$125,000,000 previously authorized for Federal aid in road construction for the fiscal year ending June 30, 1933. The net apportionment available for new projects amounts to \$105,875,000.



Our Own Ear to the Ground Department

● Everyone knows that lubricating oils are used in motor trucks because of their characteristic of "oiliness," but until recently there was no ready means of measuring this very valuable property of oil. "Oiliness" testers have now reached the laboratory stage of development. A steel ball under heavy pressure is moved in a circle around a disk of metal and drag of the ball is measured in terms of coefficient of friction. Inasmuch as oiliness is not the same as viscosity, tests are made at uniform temperatures to avoid possibility of error.

● You may see several engines in trucks next year which do their vibrating without shaking the chassis. Several engineers are working on details of the design.

● We learn of more progress in truck Diesels. One manufacturer of engines of this type suitable for heavy duty service is trying out a modified design in a truck. Another factory, seeking to overcome the handicap of greater weight in Diesels, has boldly taken to two-cycle operation for its experimental Diesel. The compression-ignition idea lends itself well to two-cycle construction, with a power stroke every revolution of the crankshaft.

● Unburned fuel in engine exhaust can be burned by introducing heated air into the exhaust manifold. The difficulty in the way of commercial application is light load and cold engine periods. We are assured that this difficulty is not insurmountable.

● Driver and cab will soon be shoved up front alongside the engine compartment in heavy duty trucks, if one engineer's reasoning is sound. This design, originally intended to reduce overall length of vehicles, and well established in England, will be adopted here to put more load on front wheels of trucks and thus extend the legal load-carrying ability of motor vehicles in states which limit load per wheel or per axle. The maximum allowable load cannot be put on front wheels in conventional designs.

● Neither clutch pedal nor gearshift lever appears on a motor vehicle now being tested in secret. In place of the clutch and transmission is a mechanism which picks up the driving load and applies at all times the exact ratio of reduction between engine and propeller shaft required for varying conditions. Pushing the accelerator is the extent of effort required to start the job and bring it up to full speed. The device is being developed for motor commercial vehicles, not passenger cars.

● Immediately following the above it is appropriate to say that anyone who thinks that the gasoline engine is at the limit of its development is heading toward a rude awakening. More power and smoothness with less fuel consumption are the goals toward which engineers are striving, with encouraging success. Several 1000 cu. in. displacement engines are beyond the drawing-board stage.

● The present state of railroad affairs, about which there is much wailing in public places, has turned the thoughts of several builders of railroad cars to the truck-body field. No one can gainsay the fact that they have a lot of body-building capacity.



GOOD?

they have to be

TIMKEN TRAILER AXLES

It was time that somebody approached the subject of trailer axles from the operator's viewpoint.

Growing use of trailers, their logical place in any large-scale hauling operation, and increasing legislation as to trailer-brakes—all these factors have forced trailer axles into the engineering spot-light.

Timken has solved the problem—and it had become a real problem.

Timken Trailer Axles are of Timken quality throughout—alloy steel, properly heat-treated; with spindles and bearing seats ground to close limits.

These axles are designed for all types of brakes; with *correct* brake mountings; effective hub oil-seals, and oil-slingers to prevent excessive lubricant from reaching the brakes.

Another important feature—all brake parts, hubs and bearings on Timken Trailer Axles are identical and interchangeable in the same capacities with the same parts of Timken Driving Axles—worm or bevel. This will appeal to operators owning Timken equipped trucks—big savings in inventory, greater ease and economy of maintenance.

For a graphic picture of the full line of Timken Trailer Axles, write us for literature

THE TIMKEN-DETROIT AXLE COMPANY, Detroit, Michigan

TIMKEN AXLES



NEWS



PERSONNEL CHANGES

★C. L. Schneider and Frank L. Tully have won Fruehauf promotions. Mr. Schneider now manages the Fruehauf branch in Chicago and Mr. Tully has been appointed manager of the Cleveland branch. Harry S. Moore, Mr. Tully's predecessor, has been advanced to special sales assignment work.

★T. O. Duggan and E. T. Syvertsen are new appointees of Thompson Products, Inc., to afford closer factory-jobber contact and offer additional supervision to sales work as an advance movement to an aggressive sales campaign to be launched in 1932.

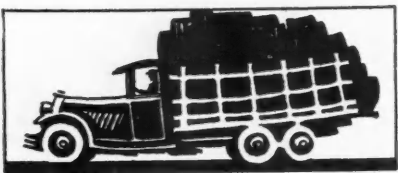
★Robert H. Crooker, assistant advertising manager, Chevrolet Motor Car Co., has been appointed advertising manager to succeed R. K. White, who resigned to become Eastern sales manager for Oakland Motor Car Co.

★W. H. Moore, formerly sales manager, Diamond-T Motor Car Co., New York, has been appointed branch manager for the LeBlond-Schacht Motor Truck Co., Cincinnati.

★W. M. Purves, formerly passenger car sales manager for Dodge Brothers, has been appointed assistant general sales manager. Mr. Purves entered the industry after graduating from Princeton in 1907 and joined Dodge in 1924.

★W. S. Pedley has been placed in charge of the Public Utilities Division of the S.P.A. Corp. with headquarters in Chicago.

★Harry E. Seanor has been promoted to the position of vice-president of the Chicago division of the White Co.



THE OVERLOAD

A collection of items—interesting even when not news—and garaged here because there's no other place for such morsels.

Even the Same Engines Differ

Until the other day we always supposed that any truck engine in use in one city was similar in every respect to its brothers in other cities. Our ignorance was exposed by E. J. Graham, superintendent of transportation, Public Service Co. of Colorado, Denver (altitude, 5280 ft.), who enlightened us that every 1000 ft. of elevation caused a 3 per cent decrease in engine power.

From Brute to Outboard Motor

At first we looked at him suspiciously, even, you might say, askance. But the next day we happened to be peeping into nooks and crannies of the Bureau of Standards. In an isolated building we came across an airplane engine which had been put through an altitude test. Questions followed and we learned that whereas at sea level the powerful brute developed 400 brake-horsepower, at an altitude of 30,000 feet it became a puny 90 brake-horsepower "outboard" motor.

Bureau Rate 2.5 Per Cent Per 1000

Out came our pencil. We calculated roughly that nothing but height had caused a loss in efficiency of 77 per cent, which is at the rate of 2.5 per cent per 1000 ft. Mr. Graham's estimate, therefore, was pretty nearly correct. At the Bureau rate engines in Mr. Graham's trucks are only 87 per cent efficient in Denver.

What Happens in Death Valley?

Well, live and learn. But say, what happens to an engine in Death Valley, which is 278 feet below sea level at its lowest point? Will somebody tell us that an engine there becomes 101 per cent efficient.

The Heroine Is Christened!

That fiction story we've been intending to write for years is practically half finished this minute. We found a name for the heroine. It's Twila Drumm! You like it, too, huh? The name came to us through the mail. Miss Drumm, who is secretary to Bill Ellis, formerly of Continental Motors, and now an advertising apostle on Gospel Hill, Marion, Ohio, asked us, quite unromantically, for clippings. This will be her first.

Get This Straight

No matter what this department says the truth is that while Merrill Horine, of Mack, agrees with Pierre Schon, of General Motors Truck, some of the time, he agrees with Jack Winchester, of Standard Oil of New Jersey, all of the time. Mr. Horine said so in a letter and Mr. Winchester corroborated it publicly during the S.A.E. Transportation Meeting in Washington. Look at the minutes yourself.

We Swear He's Wrong

We've a bone to pick with Mr. Horine in return. At what we consider was an epochal meeting of the S.A.E. truck rating standardization committee, Mr. Horine, in the course of a discussion, expressed the belief that COMMERCIAL CAR JOURNAL had started the rating standardization movement merely because it had some white space to fill with type. If you can bear up under the phrase, that's what we call draping editorial perspicacity and enterprise with a festoon of discredit. We grieve because Mr. Horine is an erstwhile member of the journalistic craft, and we fear somebody may believe him.

Are We Right or Are We Right?

Ford, we hear definitely, will have the floating power idea in his new model if patents, which are still being looked into, don't interfere. And if floating power is patently okay the engine will be a four; if not, you'll see six cylinders. And yet an informant (you'd be surprised!) tells us Mr. Ford has had four models to choose from. Even an ordinary guesser would enumerate them thusly: a new and better four; the same four with "rubber suspenders"; a six, and a V-eight.

Professional Jealousy

And in the truck line if Mr. Ford doesn't bring out a six-wheeler with factory-mounted rigid axle, we'll pay for the drinks. (This hot stuff belongs over in the Ear-to-the-Ground Department but we're jealous.)

A Boon to Balance Sheets

Police authorities advise truck operators to know the serial numbers of their tires in order to help stamp out tire thefts. Great stuff! We've seen some bookkeeping systems of truckers and we can predict that keeping tire serial numbers will help many a trucker show a right smart net profit any year.—G. T. H.

PROSPERITY NOTES



\$ The Waukesha Motor Co. has received an order for 1000 engines, valued at \$150,000. Source of business is not given. H. L. Horning, president, notes marked improvement in business since August.

\$ Chevrolet with a September production of 45,863 units still carries more than 30,000 men on its pay-roll.

\$ Retail deliveries of Dodge cars and trucks for four-week period ending Aug. 30 were 183.2 per cent of figures for the corresponding period in 1930, states A. van DerZee, general sales manager.

\$ An increase of 21.7 per cent in the sales of valves to jobbers for the first eight months of this year over the corresponding period last year is reported by the Toledo Steel Products Co.

\$ Retail delivery of the new Dodge six and eight trucks in July, August, and September reached a total of 103.6 per cent of sales during the same three months in 1930.

\$ Diamond-T Motor Car Co. reports a 35 per cent increase in sales and shipments for September, as compared with the same month last year. September was the fourth consecutive month to show an increase over the corresponding period last year.



CAUGHT IN QUOTES

Public Be Considered!

SENATOR COUZENS OF MICHIGAN—"I am afraid that in the hearings on motor bus legislation proposals we have been looking at the subject more from the angles of the railroads and the buses than from the standpoint of the public. I believe that we should consider in such legislation the point of view of the public at large. Congress so far has not had adequate demonstration of the public attitude on motor transportation regulation. So far as I know, no one representing the public has appeared at the congressional hearings. The public has not been represented before any committees on this question. Congress should not act until there is demonstration of the interest of the shippers and the public generally." (Announced orally Oct. 19 at Washington.)

Mr. Johnson takes a profitable tip from the men at the wheels . .

PIERCE-ARROW BUFFALO SALES
INCORPORATED
MAIN STREET AT JEWETT AVENUE
BUFFALO, N. Y.

Budd Wheel Co.,
Detroit, Mich.

Gentlemen:

This truck's owner demanded Budd-Michelin Wheels.

Mr. Johnson says, "Budd demountable wheels are easy to handle and my drivers like them. I find that when my men have tools and equipment that they like, their efficiency goes up and my work is done quicker and better."

"With the Budd double cap-nut mounting, my men say that each of the dual wheels is more securely held in place and that there is no chance for the costly wheel wobble I see on so many other trucks."

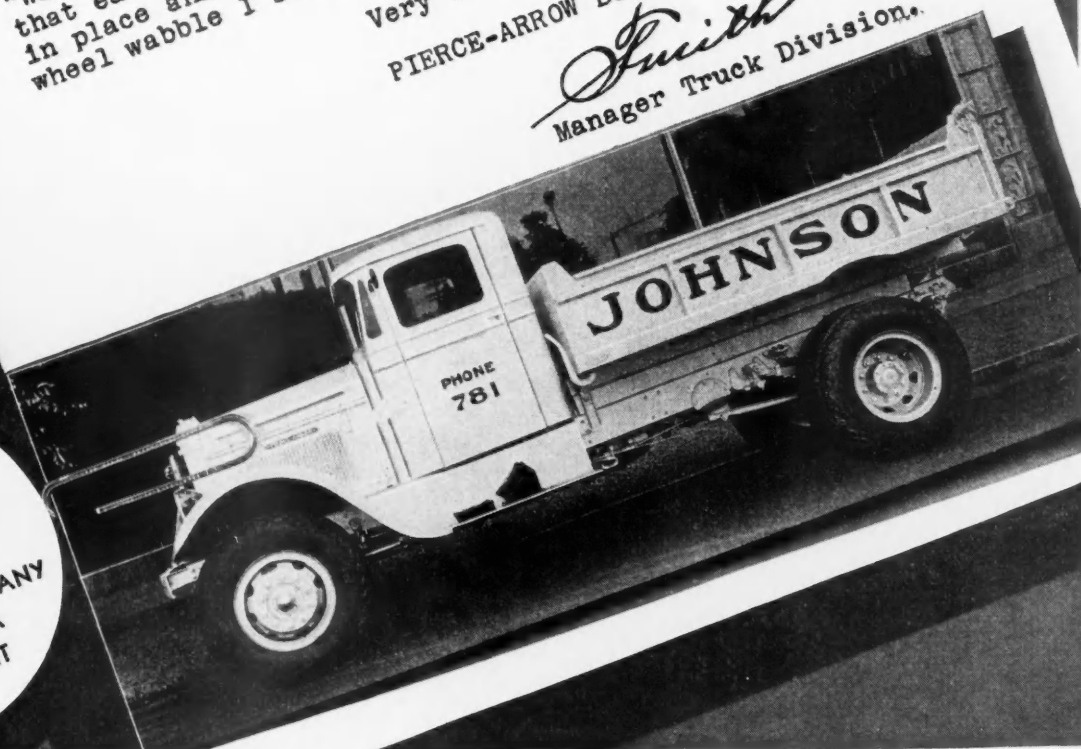
Very truly yours,

PIERCE-ARROW BUFFALO SALES INC.

Smith
Manager Truck Division.

**BUDD
DUALS**

BUDD WHEEL COMPANY
PHILADELPHIA
AND DETROIT



THE PRESIDENT'S PAGE

CONTINUED FROM PAGE 13

lected in motor vehicle taxes—to be used for the development and maintenance of roads—has been diverted to other activities having nothing to do with roads.

In other words, motor vehicles have not only paid for highway maintenance and development, but in six years have contributed \$90,000,000 for other purposes.

Commercial haulage operators have, however, at last awakened to the need for prompt and decisive action. They have rallied "round the old flag" and are presenting a battle front that compels consideration. Some very excellent accomplishments have resulted, for the truck operator has a real story to tell.

Unquestionably the truck is a time-saver and a profit-maker for the farmer. In field and forest, over all sorts of unimproved roads, wherever there is hauling to be done, the motor truck performs the job economically and well. It is doubtful if any single item of farm equipment has helped more to establish agricultural work on a more business-like and profitable basis.

Think too what the motor truck means to the nation's great army of manufacturers, wholesalers and retailers. It is a well-known fact that no merchandise is consumed on the spot where produced. The vital matter of distribution enters into consideration in every industry.

And here is where the motor truck fits in as an indispensable factor. Deliveries which used to require from a week to 10 days are now made overnight by truck. Retail merchants and wholesalers, who were formerly obliged to carry tremendous stocks of merchandise to guard against possible shortages, now buy in relatively small quantities. Thus they reduce inventories, release capital for expansion purposes, and guard against the risk of disaster to their business through a general price collapse. Quick turnover and quick profits, the life-blood of industry, are made possible by commercial haulage.

Continued unjust taxation means higher living costs. The consumer is today dependent on the truck to some extent for every commodity needed, and for many products he is 100 per cent dependent on this form of transportation. Obviously, then, anything which seriously interferes with commercial haulage service costs the consumer more money for the necessities of life as well as seriously affects his comfort and well-being.

The motor truck supplements and aids the service of railways. It performs a part of the job of distribution which railroads cannot. It is a natural ally of the railroads. Truly the motor truck is today an integral part of our great distribution facilities. So completely is the world geared up to motor truck efficiency that should anything happen which would suddenly eliminate this form of transportation, nothing short of a calamity would result. You simply cannot imagine the world today without motor trucks.

By vigorous, concerted action, truck users can safeguard themselves and the country at large from the disastrous results of pernicious tax legislation. Organized effort in many sections of the country has accomplished much in the way of heading off unjust tax laws and in placing the motor truck in its true light with the public at large. Herein lie the safety of the motor truck and the protection of those tremendous advantages it affords.

FLUSHING WASHES OUT COOLING SYSTEM TROUBLES

CONTINUED FROM PAGE 38

countered in cases of jammed winter fronts, clogged radiators, or engine trouble causing overheating. This cause of loss seldom occurs in cars properly flushed and kept in good mechanical condition. Trucks as a rule are in fair condition only, and when winterfronts are used, trouble from jamming because of hard usage is likely to occur. Other more serious losses from boiling occur in cases of compression leaks and "thermal surge." If the cylinder head bolts are not drawn tight, compression leakage through the gasket into the water jacket will displace a small volume of the cooling medium and give the impression of boiling. True boiling does not occur until a considerable quantity of the coolant has been so displaced.

Overfilling—Losses through the overflow most commonly occur from overfilling. Unless care is taken to avoid overfilling, such as taking this operation out of the driver's hands and supplying one man to be responsible for the condition of the system, losses from this source are sure to occur.

Additions of Water—Water often is added twice a day in truck fleets, and usually while the engine is hot.

(a) Expansion: There is some

danger of losses due to expansion of the solution to the point of overflow, although these losses are slight if water is added only while the engine is hot. The greatest losses occur from overfilling, which is sometimes erroneously charged to expansion.

(b) Evaporation: Evaporation of water from solution is constantly lowering the solution level. Notwithstanding the fact that the vehicle will operate satisfactorily during the cold season on a smaller quantity of cooling medium, water is added to be on the safe side. This introduces the daily possibility of overfilling and expansion, which amounts to a gradual though slow decrease of the anti-freeze concentration.

SHORT CIRCUITS TO ELECTRICAL GRIEFS

CONTINUED FROM PAGE 45

off the band, looked at the commutator and tested tension of the spring on the third brush. He also slipped the cover off the cut-out and closed the contacts. It was evident that the generator needed attention.

Tests on a generator are shown in illustrations. The unit is mounted on the test stand and driven at any desired speed by an electric motor. Current, if any, is registered on an ammeter and voltmeter, on the battery line.

Dismantling is in order if tests show that the trouble is in armature and/or field coils. The armature is tested, as a unit on a growler, and individual coils are tested by a pair of test points.

Connecting battery current to the field coil windings and watching the ammeter show whether or not the coils are in order.

Black, spotted and eccentric commutators are turned in a lathe, giving an entirely new surface. Insulation between bars is removed by an under-cutter, comprising a small saw driven at very high speed.

Ball bearings, which too frequently suffer from lack of lubrication, are removed from the armature shaft by pullers or pushers.

After repairs are completed the unit is reassembled and given a final test on the bench.

Most test benches embody fixtures for testing ignition systems. Sparks are discharged across adjustable gaps and the current consumption is measured on the bench meters. Extra condensers and contact points are used to check similar parts of the vehicle's equipment.

COMMERCIAL CAR JOURNAL

TABLE OF TRUCK SPECIFICATIONS

Corrected Each Month From Data
Supplied Direct by Manufacturers

(KEY TO REFERENCES ON PAGE 76)

Tractor Trucks

Make, Model and Capacity	General			Gear Set		RearAxle		For Corresponding Truck Model, See Specifications Under Tonnage Noted	Make, Model and Capacity	General			Gear Set		Rear Axle								
	Chassis Price	Standard W.B.	Gross Vehicle Wt. See Key Note	Chassis Wt. Stripped	Make and Model	Location	No. of Forward Speeds			Aux. Locat. and Speeds	Gear Ratios Reduc. in High Reduc. in Low	Chassis Price	Standard W.B.	Gross Vehicle Wt. See Key Note	Chassis Wt. Stripped	Make and Model	Location	No. of Forward Speeds	Aux. Locat. and Speeds	Gear Ratios Reduc. in High Reduc. in Low	For Corresponding Truck Model, See Specifications Under Tonnage Noted		
A.C.F. TT175A	155	75000	11000	BL714703	U	12	Op	7.48	101	T-175A	Indiana. 140	138	24500	5900	B-L	U	4	No	6.16	35.3	140	2 1/2	
A.C.F. TT175B	155	60000	10250	BL714703	U	12	Op	7.46	101	T-175B	Indiana. 170	138	29750	6800	B-L	U	4	No	6.41	46.6	170	3	
A.C.F. TT160	155	60000	9700	BL1714703	U	12	Op	7.46	135	T-160	Indiana. 195	138	34125	7900	B-L	U	4	No	6.8	49.5	195	4	
Autocar. DT 3500	140	20000	5300	B-L 51	U	4	No	6.27	33.5	D-2	Indiana. 220	138	38500	8200	B-L	U	4	No	6.96	50.7	220	5	
Autocar. SHST 4800	104	40000	7900	Own T	U	4	No	10.4	66.6	SHS	Indiana. 190	139	33250	7625	B-L	U	4	No	7.75	78.6	190	3	
Autocar. SCHST 4800	145	40000	8260	Own T	U	4	A	10.4	66.6	SCHS	Indiana. 250	146	43750	10000	B-L	U	4	No	10.15	63.7	250	5 1/2	
Brookway. 90	137	15750	3850	B-L 70	U	7	No	11.66	109	F	Indiana. 290	146	52500	10750	B-L	U	4	No	10.0	95.0	290	5 1/2	
Brookway. 140	138	24500	5900	B-L	U	4	No	6.35	31.40		International. A-L 3	1450	138	4450	4032	W-G T7	U	4	No	6.50	42.9	AL-3	1 1/2
Brookway. 170	138	29750	6800	B-L	U	4	No	16.4	46.6	170	International. A-2	675	136	2935	W-G T9	U	4	No	6.16	39.5	A-2	1 1/2	
Brookway. 195	138	34125	7900	B-L	U	4	No	6.8	49.5	195	International. B-2	725	136	2959	M. M. 'O'	U	3	No	6.16	47.3	B-2	1 1/2	
Brookway. 220	138	38500	8260	B-L	U	4	No	6.96	50.7	220	International. A-4	1860	145	5221	Own A5	U	5	No	6.5	47.8		3	
Brookway. 190	139	33250	7625	B-L	U	4	No	7.75	78.6	190	International. A-5	2550	140	5836	Own A-5	U	5	No	7.16	52.6		3	
Brookway. 250	146	43750	10000	B-L	U	4	No	8.75	63.7	250	International. A-6	2675	135	620	Own AB	U	5	No	8.50	76.8	A-6	3	
Brookway. 290	146	52500	10750	B-L	U	4	No	10.1	95.0	290	International. W-1	3850	130	8100	Own AC	U	5	No	6.85	65.5	W-1	2 1/2	
Chicago 1-76-D 20T	159	8740	B-L 60 Max	A	7	No	7.6	77.2		International. W-3	4850	144	10100	Own	U	5	No	8.50	75.0	W-3	5		
Concor. CB	118	3875	Cov A-4 J	U	4	No				LaFrance Rep. M-2T	147	20000	7700	Ful VUOG	U	5	No	7.2	51.0	M-2	2		
Concor. CC	122	4820	Cov W4J	U	4	No				LaFrance Rep. 35-2T	147	24000	9400	Ful MHU	U	5	No	7.33	46.3	35-2	5 1/2		
Concor. CD	122	5020	Cov W4J	U	4	No				Mack. BL	2500	138	Own BL	U	4	No	Opt	Opt	BL	1			
Concor. CF	118	5200	Cov Rus	U	4	No				Mack. BG	3000	138	Own BG	U	4	No	Opt	Opt	BG	1 1/2			
Concor. CGW	153	8950	Cov Rus	U	4	No	6.3	41.0		Mack. AB	4000	138	Own AB	U	4	No	Opt	Opt	AB	3			
Corbitt. 938T	139	18000	4200	BL-214	U	4	No	6.3	43.6		Mack. AB	4150	123	Own BC	U	4	No	Opt	Opt	BC	3		
Corbitt. 12B6T	152	20000	4955	BL-51	U	4	No	7.40	48.8		Mack. BC	5250	142	Own BC	U	4	No	Opt	Opt	BC	4		
Corbitt. 15B6T	157	25000	5880	B-L 51-5	U	5	No	7.80	46.5		Mack. BC	5500	142	Own BC	U	4	No	Opt	Opt	BC	5		
Corbitt. 18D6T	159	30000	7600	BL-615	U	5	No	7.33	48.0		Mack. BJ	6450	169	Own BJ	U	4	No	Opt	Opt	BJ	5		
Corbitt. 24D6T	165	40000	9200	BL-70	U	7	No	8.15	76.6		Mack. AK	5150	134	Own AC	U	4	No	Opt	Opt	AK	5		
Diamond T. 216	695	135	18000	3300	War	U	4	No	Opt	216	Mack. AK6, AC4, AC6	5250	144	Own AC	U	4	No	Opt	Opt	AK	5		
Diamond T. 316	155	137	20000	4400	War	U	4	No	Opt	316	(1) Mack AK6, AC4, AC6	5250	144	AK6-6 wheel, AC6-6 wheel, AP-6 wheel	U	4	No	7.75	54.2	C	2 1/2		
Diamond T. 303	1845	137	24000	4800	Cov	U	4	No	Opt	303	Netco TC. 3400	135	3400	B-L 55-4	U	5	No	8.00	56.2	E	3 1/2		
Diamond T. 551	2310	131	27000	5600	Cov	U	4	No	Opt	551	Netco TE. 4300	140	4300	B-L 515	U	5	No	6.45	34.5	40	2		
Diamond T. 504	2710	135	28000	6200	Cov	U	4	No	Opt	504	Relay. 40	3240	3240	B-L 35	U	5	No	6.45	34.5	40	2		
Diamond T. 603	3360	147	32000	7300	Cov	U	5	No	Opt	603	Relay. 60	4480	4480	Ful VU	U	5	No	7.88	58.5		5		
Diamond T. 750	4730	147	42000	8300	Cov	U	5	No	Opt	750	Reo. 4H	2800	150	6150	Own	U	4	Opt	6.43	42.4		4	
Dodge Bros. F40	1995	150	14590	5173	Own	U	4	No	6.37	43.7	Reo. TH	1565	135	4650	Own 4650	U	4	Opt	7.17	66.6	FDH	2	
Dodge Bros. F60	2645	146	18979	5543	Own	U	4	No	8.26	56.6	Reo. GD	2085	144	25000	4570	Own	U	4	Opt	8.14	77.8	GD	3
(1) Dodge Bros. UF30, F30, F35											Schacht. TRH	146	6600	Ful VUOG	U	5	No	7.8	55.1		5		
Federal. A6TW	2360	140	25000	5050	Own	A	4	No	8.75	52.9	Schacht. TRHA	148	6650	Ful VUOG	U	5	No	7.8	55.1		5		
Federal. T10W	2915	143	32000	6495	Own	A	4	No	8.75	57.0	Schacht. TRD	148	6850	Ful VUOG	U	5	No	7.8	56.8		5		
Federal. U6	3860	143	43000	7155	B-L 60	A	7	No	5.83	1.0	Schacht. TRD	148	6900	Ful VUOG	U	5	No	7.8	56.8		5		
Federal. 4C6A	4735	144	50000	8120	B-L 60	A	7	No	9.00	86.5	(1) Sterling B-30-35-45-55-65-70												
Federal. 4C6AB	4960	144	50000	8505	B-L 60	A	7	No	9.00	86.5	FD80-97-115-140-170-975												
Federal. X8	5085	155	65000	9660	B-L 60	A	7	No	11.7	110	FC100-107-120-135-140-145-170												
Federal. X8R	5810	155	65000	10385	B-L 60	A	7	No	11.7	110	FC170-180-210												
(1) Federal D2, E2, F7, A6, A6T, T3W, T3WF, T10B											Stewart. 30	695	110	2977	Cla	U	4	No	5.6	35.8	30	1 1/2	
(X) Gen. Mot. T-19	925	141	3440	Own	U	4	No	6.8	37.8		Stewart. 30X	795	110	3018	Cla	U	4	No	5.6	35.8	30X	1 1/2	
(X) Gen. Mot. T-25	1405	141	3700	Own	U	4	No	6.8	34.5		Stewart. 40	895	110	3350	War	U	4	No	5.6	35.8	40	1 1/2	
(X) Gen. Mot. T-26	1510	141	3940	Own	U	4	No	6.60	33.5		Stewart. 40X	995	110	3393	War	U	4	No	5.6	35.8	40X	1 1/2	
(X) Gen. Mot. T-30	1700	141	4705	Own	U	4	No	6.43	32.7	T-30	Stewart. 34X	1195	135	3710	War	U	4	No	5.6	22.0	34X	1 1/2	
(X) Gen. Mot. T-31	1845	141	4695	Own	U	4	No	6.43	30.5	T-31	Stewart. 28X	1495	130	4058	Ful	U	4	No	6.37	47.0	28X	2 1/2	
(X) Gen. Mot. T-42	1845	141	4725	Own	U	4	No	7.14	36.2	T-42	Stewart. 29X	1695	135	4260	Ful	U	4	No	6.37	47.0	29X	2 1/2	
(X) Gen. Mot. T-44	2065	141	5095	Own	U	4	No	9.45	48.0	T-44	Stewart. 32X	1990	148	5230	Ful	U	4	No	7.25	47.0	32X	2 1/2	
(X) Gen. Mot. T-45	2095	141	5235	Own	U	4	No	9.45	59.5	T-45	Stewart. 18X	2690	148	5901	Ful	U	4	No	7.25	47.0	18X	2 1/2	
(X) Gen. Mot. T-51	2625	155	6250	Own	U	4	No	7.14	44.1	T-51	Stewart. 35X	2590	149	5880	Ful	U	4	Op	7.1	46.1	35X	3	
(X) Gen. Mot. T-55	2750	155	6390	Own	U	4	No	9.45	58.4	T-55	Stewart. 19X	3690	147	710	Ful	U	12	A	7.25	127	19X	3 1/2	
(X) Gen. Mot. T-60	3250	154	7150	Own	U	4	No	10.7	65.9	T-60	Stewart. 31X	4990	150	8440	Ful	U	8	U	10.5	15.1	31X	5	
(X) Gen. Mot. T-61	3525	154	7045	Own	U	4	No	10.7	65.9	T-61	Stewart. 27X	5700	150	9987	Ful	U	8	U	6.56	93.8	27X	5 1/2	
(X) Gen. Mot. T-82	3970	155	7735	Own	U	12	A	12.3	171		Studebaker. 8-40	945	148	3650	WGA5I T9	U	5	No	5.83	37.4	8-40	2	
(X) Gen. Mot. T-83	4275	155	7815	Own	U	12	A	12.3	171		Walter. FBD	8500	118	26000	9000	Own	U	5	No	8.50	85.1		1
(X) Gen. Mot. T-85	5800	171	10800	Ful	U	4	No	10.5	66.1		Walter. FBRD	8700	118	31000	10000	Own	U	5	No	8.50	85.1		1
(X) Gen. Mot. T-90	5455	185	9775	Mun	U	12	A	10.3	144		Ward La Fra. 75D-15T	Op	10000	B-L 70 Max	A	7	No	Opt	Opt				
(X) Gen. Mot. T-95	7675	189	13540	Ful	U	4	No	8.5	53.3		White. 52T	4700	129	28000	8461	Own 4B	U	4	No	11.7	76.5		5
(X) Gen. Mot. T-96	7325	189	13140	Ful	U	4	No	9.11	57.1		White. 51AT	3875	134	17000	6227	Own 4B	U	4	No	7.14	46.6	51-A	2 1/2
Gramm AX4. 2-3	131		3100	War T9	U	4	No	5.8	36.3	AX4	White 210. 211	133	17000	6438	Own 8B	U	4	No	5.67	23.4	210	2 1/2	
Gramm AX6. 2-3	131		3300	War T9	U	4	No	5.8	36.3	AX6	White 212. 212	133	17000	6438	Own 8B	U	4	No	5.67	23.4	212	2 1/2	
Gramm BX4. 3-4	131		3275	War T9	U	4	No	6.2	39.6	BX4	White 55. 516	5476	15000	8737	Own 4B	U	4	Op	1.0	1.66	155	3 1/2	
Gramm BX6. 3-4	131		3475	War T9	U	4	No	6.2	39.6	BX6	White 56. 3125	165	20000	5276	OwnGRBB	U	4	No	6.33	26.2	56	2	
Gramm CX4. 4-6	131		3700	War T9	U	4	No	5.8	36.3	CX4	White 58. 3440	162	30000	7797	Own 4B	U	4</						

(1) Models available as tractor trucks.

FEDERAL schedules eight models in the tractor truck section this month and Reo adds Model 4 H in this section.

New truck models presented in the specification tables this month include:

LaFrance-Republic: 24, 5 1/2-ton and more.

Stewart: 48-8 3-ton.

Walter: FN 2 1/2-ton, FM 3 1/2-ton.

Line Number	Make, Model and Capacity	General			Tire Size		Make and Model	Engine										Fuel System		Electrical System		Line Number					
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)		Front	Rear	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make		Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
1000 Pounds																											
1	Chevrolet... Ind. Com.	355	109	109	4000	1880	B 4.75/19	B 4.75/19	Own	6-3 1/2 x 3 1/2	194.0	26.3	50-2600	H	G	C	2 1/2	6 1/2	3	PG	No	Car	P	D-R	D-R	1	
2	Dodge Bros... UF-10	375	109	109	4025	1925	B 5.00/19	B 5.00/19	Own	6-3 1/2 x 3 1/2	196	21.0	48-2800	L	G	C	2 1/2	6 1/2	3	FP	No	Car	P	D-R	D-R	2	
3	Dodge Bros... F-10	445	109	109	4125	1975	B 5.25/19	B 5.25/19	Own	6-3 1/2 x 3 1/2	211.5	25.3	66-3200	L	G	C	2 1/2	6 1/2	3	FP	No	Car	P	D-R	D-R	3	
4	Fargo Packet	595	103	103	4000	1935	B 5.00/19	B 5.00/19	Own	6-3 1/2 x 3 1/2	189.8	25.4	50-2200	L	G	C	2 1/2	6 1/2	3	FP	No	Car	P	D-R	D-R	4	
5	Ford... A	625	109	141	3800	1880	B 4.75/19	B 4.50/20	Own A	4-3 1/2 x 4 1/2	200.3	26.3	60-3000	L	G	C	2 1/2	5 1/2	3	CC	No	Mar	M	D-R	D-R	5	
6	(X) Gen. Mot... T-15	121	141	141	6500	2425	B 5.50/20	B 5.50/20	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	G	C	2 1/2	5 1/2	3	CC	No	Mar	M	D-R	D-R	6	
7	Paige	765	115	144	4435	2350	B 5.50/19	B 5.50/19	Own	6-3 1/2 x 3 1/2	207	23.4	66-3200	L	G	C	2 1/2	8 1/2	4	FP	No	Ste	M	D-R	D-R	7	
8	Studebaker	595	114	114	4000	2330	B 5.25/19	B 5.25/19	Own	6-3 1/2 x 3 1/2	221	21.3	70-3200	L	G	C	2 1/2	8 1/2	4	CC	No	Ste	M	D-R	D-R	8	
9	Willis Six... C-113	395	113	113	4000	1923	B 5.00/19	B 5.00/19	Own C-113	6-3 1/2 x 3 1/2	193.0	25.3	65-3400	L	G	C	2 1/2	6 1/2	3	CC	No	Til	M	A-L	A-L	9	
1500 Pounds																											
11	Dodge Brothers	490	124	124	4760	2260	B 6.00/20	B 6.00/20	Own	4-3 1/2 x 4 1/2	196	21.0	48-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Car	V	D-R	D-R	11	
12	Dodge Brothers	595	124	124	4860	2360	B 6.00/20	B 6.00/20	Own	6-3 1/2 x 4 1/2	208.0	27.3	63-3200	L	L	C	2 1/2	10 1/2	7	FP	No	Car	V	D-R	D-R	12	
13	Fargo Clipper	725	120	128	6800	2340	B 5.50/18	B 5.50/18	Own	6-3 1/2 x 3 1/2	195.6	23.4	63-3200	L	L	C	2 1/2	10 1/2	7	FP	No	Car	V	D-R	D-R	13	
14	Fisher-Std... JR-BX	120	120	128	6800	2800	P 30x5	P 30x5	Con W10	4-3 1/2 x 4 1/2	200.5	24.0	48-2800	L	L	C	2 1/2	5 1/2	3	FP	No	Zen	M	A-L	A-L	14	
15	(X) Gen. Mot... T15	645	130	141	6500	2625	B 5.50/20	B 5.50/20	Own 200	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	L	C	2 1/2	5 1/2	3	FP	No	Mar	M	D-R	D-R	15	
16	Relay... 15AA	1370	131	131	7000	3750	P 30x5	P 30x5	Own 17E	6-3 1/2 x 4	214.7	27.3	52-2200	L	L	C	2 1/2	9 1/2	7	FP	No	Car	V	D-R	D-R	16	
1 Ton																											
17	Atterbury	132	145	145	7000	3400	P 30x5	P 30x5	Lyc WTG	6-3 1/2 x 4 1/2	201.4	21.6	64-2800	L	G	C	2 1/2	4	CC	No	Zen	G	D-R	D-R	17		
18	Brockway	132	141	141	6000	3200	P 30x5	P 30x5	Con	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	G	C	2 1/2	4	CC	No	Zen	G	D-R	D-R	18		
19	Brockway	137	145	145	6500	3400	P 30x5	P 30x5	Con	6-3 1/2 x 4 1/2	248.2	27.3	65-2700	L	G	C	2 1/2	10 1/2	4	CC	No	Zen	G	D-R	D-R	19	
20	Commerce... S-11	1600	142	162	6500	3900	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	G	C	2 1/2	4	FP	No	Zen	V	D-R	D-R	20		
21	Condor... CAV6	825	131	180	8000	3550	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4 1/2	214	27.4	61-3000	L	G	C	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	21	
22	(T) Day Elder	825	135	156	6000	3300	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	G	C	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	22	
23	Diamond T	695	135	158	8500	3300	B 6.50/20	B 6.50/20	Her JXA	6-3 1/2 x 4 1/2	228.0	27.3	50-2200	L	G	C	2 1/2	10 1/2	7	FP	No	Zen	V	D-R	D-R	23	
24	Dodge Brothers	495	133	133	5840	2500	P 30x5	P 32x6	Own	6-3 1/2 x 3 1/2	196	21.0	48-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Car	V	D-R	D-R	24	
25	Dodge Brothers	595	133	133	5940	2690	P 30x5	P 32x6	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	7	FP	No	Car	V	D-R	D-R	25	
26	Douglas	1095	135	145	7500	3075	P 30x5	P 30x5	Bud J214	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	L	C	2 1/2	10 1/2	7	FP	No	Car	V	D-R	D-R	26	
27	Fargo Freight	795	128	136	7800	3150	P 30x5	P 32x6	Own	6-3 1/2 x 4 1/2	189.8	23.4	52-2400	L	L	C	2 1/2	5 1/2	3	FP	No	Car	V	D-R	D-R	27	
28	Fisher-Std. Sp. X-1-14	1600	142	162	6500	3900	P 30x5	P 30x5	Con W-20	4-3 1/2 x 4 1/2	227	26.8	52-2400	L	L	C	2 1/2	5 1/2	3	FP	No	Zen	M	A-L	A-L	28	
29	Garford	875	130	141	6500	2670	B 7.00/20	B 7.00/20	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	G	C	2 1/2	4	CC	No	Zen	V	D-R	D-R	29		
30	(X) Gen. Mot... T-15	795	131	180	8000	3550	B 6.00/20	B 6.50/20	Own 200	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	G	C	2 1/2	5 1/2	3	FP	No	Mar	M	D-R	D-R	30	
31	Gramm... AX-1	695	131	180	8000	3550	B 6.00/20	B 6.50/20	Con W-10	4-3 1/2 x 4 1/2	200.4	24.0	50-2800	L	G	C	2 1/2	5 1/2	3	CC	No	Til	M	A-L	A-L	31	
32	Gramm... AX-6, 1	895	131	180	8000	3550	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4 1/2	214	27.4	74-3300	L	G	C	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	32	
33	Hahn & Selden	124	145	145	6500	3400	P 30x5	P 30x5	Con 29L	6-2 1/2 x 4 1/2	185.0	19.8	45-2300	L	G	C	2 1/2	4	FP	No	Zen	V	D-R	D-R	33		
34	Indiana	137	149	149	6500	3400	P 30x5	P 30x5	Con	6-3 1/2 x 4 1/2	248.2	27.3	65-2700	L	G	C	2 1/2	10 1/2	4	CC	No	Zen	V	D-R	D-R	34	
35	LaFrance-Republic-A-1	795	132	141	6000	3000	B 5.50/20	P 32x6	Lyc WTG	6-3 1/2 x 4 1/2	201.5	21.6	60-2500	L	G	C	2 1/2	7	4	CC	No	Zen	V	D-R	D-R	35	
36	LaFrance-Republic-A-1	810	144	144	6000	3000	B 5.50/20	P 32x6	Lyc WTG	6-3 1/2 x 4 1/2	201.5	21.6	60-2500	L	G	C	2 1/2	7	4	CC	No	Zen	V	D-R	D-R	36	
37	Relay... 15AB	1400	131	131	7000	3800	P 30x5	P 30x5	Con 17E	6-3 1/2 x 4 1/2	214.7	27.3	52-2200	L	G	C	2 1/2	4	CC	No	Zen	V	D-R	D-R	37		
38	Rugby	1112	112	112	4000	2045	B 5.00/19	B 5.00/19	Con 22-A	6-3 1/2 x 3 1/2	151.6	25.3	71-3300	L	G	C	2 1/2	6 1/2	4	PC	No	Str	M	A-L	A-L	38	
39	Service	1600	142	162	7000	3900	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	G	C	2 1/2	4	CC	No	Zen	V	D-R	D-R	39		
40	Sterling... FB30	795	142	162	6500	2950	B 6.50/20	B 6.50/20	Con 25A	6-3 1/2 x 4 1/2	214.7	27.3	72-3300	L	G	C	2 1/2	6 1/2	4	CC	No	Zen	V	D-R	D-R	40	
41	Stewart	695	130	160	6305	2977	B 6.50/20	B 6.50/20	Lyc AFE	4-3 1/2 x 4 1/2	199.0	22.5	50-2600	L	G	C	2 1/2	7 1/2	4	PC	No	Str	V	D-R	D-R	41	
42	Stewart... 30X	795	130	160	6305	3018	B 6.50/20	B 6.50/20	Lyc WSG	4-3 1/2 x 4 1/2	201.5	21.0	50-2600	L	G	C	2 1/2	7 1/2	4	PC	No	Str	V	D-R	D-R	42	
43	White... 15 B	1545	133	150	7500	3402	P 30x5	P 30x5	Own GKA	4-3 1/2 x 5 1/2	226.4	22.5	31-1600	L	G	C	2 1/2	10 1/2	7	4	CC	No	Zen	V	D-R	D-R	43
44	White... 60	1850	138	157	8000	3739	P 30x5	P 30x5	Own 2A	6-3 1/2 x 4 1/2	226.0	22.4	31-1600	L	G	C	2 1/2	10 1/2	7	FP	No	Zen	V	D-R	D-R	44	
45	World... DA-60	1195	150	166	8500	3650	B 6.00/20	DB6.00/20	Lyc WTG	6-3 1/2 x 4 1/2	201.5	21.6	63-2900	L	G	C	2 1/2	7	4	CC	No	Zen	V	D-R	D-R	45	
1 1/4 Ton																											
47	Brockway	137	149	149	7500	3450	P 32x6	P 32x6	Con	6-3 1/2 x 4 1/2	248.2	27.3	65-2700	L	G	C	2 1/2	1									

Line Number	Radiator Make	Clutch	Gear Set		Universal Make and No.	Rear Axle			Front Axle			Brakes			Frame			Body Mounting Data			Springs			Auxiliary Type	Line Number
			Type and Make	Make and Model		Final Drive and Type	Drive and Torque	Gear Ratios		Make and Model	Service	Area Service Brakes		Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear				
								No. of Forward Speeds	Aut. Locat. and Speeds			Reduce. in High	Reduce. in Low									Hand	Hand		
1	Har	P.Own	Ow'n Ind.	U	3	Ow'n	Ow'n Int.	S ₁	4.1	13.6	Ow'n Ind.	O4IM	101	21	Ow'n	5x2 1/4 x 1/4	C	53 1/2	28 1/2	42 1/2	36x1 1/4	54x1 1/4	N	1	
2	Fed	P.	Ow'n	U	3	Ow'n	Ow'n	S ₁	4.6	13.9	Ow'n	O4IH	121	TX	Ow'n	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	35 1/4 x 1 1/4	53 1/4 x 1 1/4	N	2	
3	Fed	P.	Ow'n	U	3	Ow'n	Ow'n	S ₁	4.6	13.9	Ow'n	O4IH	121	TX	Ow'n	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	35 1/4 x 1 1/4	53 1/4 x 1 1/4	N	3	
4	Ow'n	D.Own	Ow'n	U	3	Ow'n	Ow'n	S ₁	3.7	11.7	Ow'n	O4IM	168	21	Ow'n	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	35 1/4 x 1 1/4	53 1/4 x 1 1/4	N	4	
5	Ow'n	D.Own	Ow'n	U	3	Ow'n	Ow'n	S ₁	4.4	14.7	Pontiac	S4IM	200	41	Jac	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	30 1/2 x	39 1/2 x	N	5	
6	Lon	P.Own	Pontiac	U	3	M.M.	Pontiac	S ₁	4.8	16.1	Tim 51500	B4IM	308	41	Jac	6x2 1/4 x 1/4	C	68 1/2	39	34	38x2	50 1/2 x 2 1/2	N	6	
7	Lon	P.Own	Ow'n	U	3	M.M.	Sal	S ₁	4.7	14.2	Clark	4IH	154	T	Ros	5 1/2 x 2 1/4 x 1/4	C	68 1/2	39	34	36x2	54x2	N	7	
8	Lon	P.Own	W-G	U	3	M.M.	Ow'n	S ₁	4.7	14.2	Ow'n	B4IM	148	41	Ros	5 1/2 x 2 1/4 x 1/4	C	68 1/2	39	34	36x1 1/4	54x1 1/4	N	8	
9	McC	P.Lon	W-G	U	3	Spl 2	Ow'n	S ₁	4.7	14.2	Ow'n	B4IM	148	41	Ros	5 1/2 x 2 1/4 x 1/4	C	68 1/2	39	34	36x1 1/4	54x1 1/4	N	9	
10	Fed	P.B&B	Ow'n	U	3	Spl	Ow'n	S ₁	4.6	12.4	Ow'n	B4IM	143	41	Ow'n	5 1/2 x 2 1/4 x 1/4	C	68 1/2	39	34	36x1 1/4	51x1 1/4	N	10	
1000 Pounds																									
11	Fed	P.	Ow'n	U	3	Ow'n	Ow'n	S ₁	5.63	21.1	Ow'n	O4IH	189	TX	Han	6x2 1/4 x 1/4	C	66 1/2	31	37 1/2	39x2	48x2 1/2	N	11	
12	Fed	P.	Ow'n	U	3	Ow'n	Ow'n	S ₁	5.11	19.2	Ow'n	O4IH	189	TX	Han	6x2 1/4 x 1/4	C	66 1/2	31	37 1/2	39x2	48x2 1/2	N	12	
13	Ow'n	D.Own	Ow'n	U	3	Ow'n	Sal F	S ₁	4.9	15.5	Ow'n	L4IH	362	TX	Ros	6 1/2 x 2 1/4 x 1/4	C	84	47 1/2	32	40x2	54x2 1/2	N	13	
14	Lon	P.Own	W-G T9	U	4	M.M.	Ow'n	S ₁	4.86	16.1	Ow'n	B4IM	308	41	Jac	6x2 1/4 x 1/4	C	87	48	34	38x2	50 1/2 x 2 1/2	N	14	
15	Lon	P.Own	W-G T-9	U	4	M.M.	Ow'n	S ₁	4.86	16.1	Ow'n	B4IM	308	41	Jac	6x2 1/4 x 1/4	C	87	48	34	38x2	50 1/2 x 2 1/2	N	15	
16	Lon	P.B&B	W-G T-9	U	4	M.M.	Ow'n	S ₁	6.00	38.4	Col 5540	L4IH	297	FX	Han	6x2 1/4 x 1/4	P	96	55	34	36x2 1/4	48x2 1/4	N	16	
17	Fed	P.B&B	War T9	U	4	Spl 300	Tim 51000H	S ₁	6.20	39.7	Tim 11710H	L4IH	424	...	Gem	5 1/2 x 3 1/4 x 1/4	C	96	53 1/2	34	38x2 1/4	50x2 1/4	N	17	
18	G&O	P.B&B	War	U	4	Spl 2	Col	S ₁	5.59	19.8	Col	B4IM	297	TX	Ros	5 1/2 x 2 1/4 x 1/4	C	90	52 1/2	34	37x2 1/4	52x2 1/4	N	18	
19	G&O	P.B&B	B-L	U	4	Spl 2	Col	S ₁	5.12	21.3	Col	C4IM	244	TX	Ros	5 1/2 x 2 1/4 x 1/4	C	95	55	34	37x2 1/4	52x2 1/4	N	19	
20	Lon	P.B-L	B-L 20	U	4	Blo	Col 54028	S ₁	5.1	25.5	Col 5530	L4IH	297	FX	Han	6x2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	48x2 1/4	N	20	
21	Per	D.Own	W-G T9	U	4	Blo	Tim 53200BF	S ₁	5.66	36.3	Tim 3000	L4IH	380	FD	Ros	6x2 1/4 x 1/4	C	81 1/2	51 1/2	34	36x2 1/4	45x2 1/4	N	21	
22	G&O	P.B&B	W-G T9	U	4	Spl	Tim	S ₁	5.66	36.3	Tim	B4IM	344	41	Ros	5 1/2 x 3 1/4 x 1/4	C	106 1/2	58 1/2	34	40x2 1/4	54x2 1/4	N	22	
23	G&O	P.B&B	W-G	U	4	Spl 2	Cla B375	S ₁	5.66	36.3	Cla F208	L4IH	252	TX	Ros	5 1/2 x 3 1/4 x 1/4	C	106 1/2	58 1/2	34	40x2 1/4	54x2 1/4	N	23	
24	Fed	P.	Ow'n	U	4	3	Ow'n	S ₁	5.6	36.1	Ow'n	O4IH	206	TX	Han	6 1/2 x 2 1/4 x 1/4	C	85 1/2	50	37 1/2	39x2	48x2 1/2	N	24	
25	Fed	P.	Ow'n	U	4	3	Ow'n	S ₁	5.1	33.4	Ow'n	O4IH	206	TX	Han	6 1/2 x 2 1/4 x 1/4	C	85 1/2	50	37 1/2	39x2	48x2 1/2	N	25	
26	Mod	P.B&B	W-G T9	U	4	M.M.	Cla B370	S ₁	5.6	36.3	Cla F208	L4IH	377	FX	Ros	5 1/2 x 3 1/4 x 1/4	C	96	58 1/2	34	39 1/2 x 2	49x2 1/2	N	26	
27	Ow'n	...	...	U	4	U-P	Cla	S ₁	5.67	37.2	Ow'n	L4IH	...	...	Ros	5 1/2 x 3 1/4 x 1/4	C	96	58 1/2	34	39 1/2 x 2	49x2 1/2	N	27
28	Lon	P.Lon	Cov F4B	U	4	Spl 3	Tim 52200H	S ₁	5.83	37.3	Tim 11703H	L4IH	297	FX	Ros	6 1/2 x 2 1/4 x 1/4	C	88	54 1/2	32	40x2	54x2 1/2	N	28	
29	Ow'n	P.B-L	B-L 20	U	4	Blo	Col 54028	S ₁	5.1	25.5	Col 5530	B4IM	308	41	Ros	6x2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	48x2 1/4	N	29	
30	Lon	P.Own	Ow'n	U	4	M.M.	Ow'n	S ₁	5.66	36.3	Tim	L4IH	380	FD	Ros	6x2 1/4 x 1/4	C	81 1/2	51 1/2	34	36x2 1/4	45x2 1/4	N	30	
31	Per	D.Own	W-G T9	U	4	Blo	Tim 53200H	S ₁	5.66	36.3	Tim	L4IH	380	FD	Ros	6x2 1/4 x 1/4	C	81 1/2	51 1/2	34	36x2 1/4	45x2 1/4	N	31	
32	Per	D.Own	W-G T9	U	4	Blo	Tim 53200H	S ₁	5.66	36.3	Tim	L4IH	380	FD	Ros	6x2 1/4 x 1/4	C	81 1/2	51 1/2	34	36x2 1/4	45x2 1/4	N	32	
33	G&O	P.B&B	W-G	U	4	Spl	Tim 52000H	S ₁	5.12	21.3	Col	L4IH	244	TX	Ros	5 1/2 x 2 1/4 x 1/4	C	96	54	31 1/2	38x2	52 1/2 x 2 1/2	N	33	
34	Lon	P.B&B	B-L	U	4	Spl 2	Tim 51000H	S ₁	5.86	36.1	Tim 11710H	L4IH	378	TX	Han	5 1/2 x 2 1/4 x 1/4	C	96	54	31 1/2	38x2	52 1/2 x 2 1/2	N	34	
35	Per	P.B&B	Ful Wo-BB	U	4	Spl 3	Tim 51000H	S ₁	5.86	36.1	Tim 11710H	L4IH	378	TX	Han	5 1/2 x 2 1/4 x 1/4	C	96	54	31 1/2	38x2	52 1/2 x 2 1/2	N	35	
36	Per	P.B&B	Ful Wo-BB	U	4	Spl 3	Tim 51000H	S ₁	5.86	36.1	Tim 11710H	L4IH	378	TX	Han	5 1/2 x 2 1/4 x 1/4	C	96	54	31 1/2	38x2	52 1/2 x 2 1/2	N	36	
37	Lon	P.B&B	W-G T-9	U	4	Blo	Ow'n	S ₁	5.14	25.5	Col 5540	L4IH	297	FX	Han	6x2 1/4 x 1/4	C	106 1/2	63	34	36x2 1/4	45x2 1/4	N	37	
38	Lon	P.B-L	B-L 20	U	4	Blo	Ow'n 20B	S ₁	5.14	25.5	Col 5530	L4IH	297	FX	Han	6x2 1/4 x 1/4	C	106 1/2	63	34	36x2 1/4	45x2 1/4	N	38	
39	McC	P.B&B	War	U	4	Spl	Adams	S ₁	4.7	15.6	Adams	S4IM	178	41	War	5 1/2 x 2 1/4 x 1/4	C	52 1/2	26	41 1/2	36x1 1/4	55x2	N	39	
40	Lon	P.B-L	B-L 20	U	4	Blo	Col 54028	S ₁	5.1	25.5	Col 5530	L4IH	297	FX	Han	6x2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	48x2 1/4	N	40	
41	Per	P.B&B	Cov F4B	U	4	Spl	Tim	S ₁	5.66	36.3	Tim	L4IH	269	TX	Ros	6x2 1/4 x 1/4	C	96	57	34	38x2 1/4	50x2 1/4	N	41	
42	Fed	P.B&B	War	U	4	Spl	Sal	S ₁	5.6	35.8	Sal	B4IM	...	...	Ros	6x2 1/4 x 1/4	C	77 1/2	40	32	38x2 1/4	50x2 1/4	N	42
43	Fed	P.B&B	War	U	4	Spl	Sal	S ₁	5.6	35.8	Sal	B4IM	...	...	Ros	6x2 1/4 x 1/4	C	77 1/2	40	32	38x2 1/4	50x2 1/4	N	43
44	Ow'n	P.Own	Ow'n TBC	U	4	Spl 2	Ow'n 15B	S ₁	5.6	35.8	Ow'n 15B	O2IM	226	TX	Ow'n	5 1/2 x 3 1/4 x 1/4	C	97 1/2	57 1/2	34 1/2	41 1/2 x 2	53 1/2 x 2 1/2	N	44	
45</																									

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
1½ Ton—Cont'd																											
1	International AL-3	1450	138	164	4032	B 6.00/20	DB6.00/20	Lyc 4SLH	6-3½x4½	224	25.3	54-2700	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	1	
2	Kenworth	85	150	152	3700	P 30x5	DP30x5	Con 18E	6-3½x4½	214	27.2	61-3000	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	2	
3	Kleber	80	140	152	3625	B 7.00/20	B 7.00/20	Con 18E	6-3½x4½	214	27.2	61-3000	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	3	
4	LaFrance-Republic C-1	144	175	7500	3300	B 6.00/20	P 32x6	Lyc 4SL	6-3½x4½	228	25.3	61-2750	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	4	
5	Lange	R 2225	140	172	9300	4600	P 32x6	Her WXB	6-3½x4½	298	33.7	67-2400	L	G	C	23½	13	4	7	PC	No	Zen	V	D-R	D-R	5	
6	Larrabee	25	1945	152	160	9375	4200	B 7.00/20	B 7.00/20	Con 16C	248	27.3	65-2700	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	6
7	LeMoon	HB10	1500	140	152	10000	3300	B 6.50/20	B 6.50/20	Con 16C	248	27.3	65-2800	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	7
8	Maccar	36200	1950	154	171	10100	4800	P 32x6	DP32x6	Bud HS	241	62.7	57-2400	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	8
9	Maccar	36A	2050	155	171	10100	4800	B 7.00/20	DB7.00/20	Bud H-298	248	62.7	57-2400	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	9
10	Mack	BL	2500	138	148	7000	4000	B 6.00/20	DB6.00/20	Own BL	255	27.3	68-2600	L	G	A	23½	10	4	7	PC	No	Zen	V	D-R	D-R	10
11	Moreland	RR-7	2025	158	170	9300	4000	B 6.00/20	DB6.00/20	Wau 6TL	255	27.3	68-2600	L	G	A	23½	10	4	7	PC	No	Zen	V	D-R	D-R	11
12	Relay	40CA	3040	168	188	7000	4000	P 34x5	DP34x5	Bud DW6	331	33.7	64-2100	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	12
13	Relay	S 11	1900	162	188	7000	4000	P 30x5	DP30x5	Bud HS 6	241	62.7	53-2200	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	13
14	Reo	1A, 1C	625	136	160	8000	3200	B 6.00/20	P 32x6	Own	205	25.3	51-2500	L	G	B	23½	10	4	7	PC	No	Zen	V	D-R	D-R	14
15	Reo	1B, 1D	725	136	160	8000	3200	B 6.00/20	P 32x6	Own	205	25.3	51-2500	L	G	B	23½	10	4	7	PC	No	Zen	V	D-R	D-R	15
16	Reo	DFX Tonner	895	135	135	9000	3200	B 6.00/20	DB6.00/20	Own	205	25.3	51-2500	L	G	B	23½	10	4	7	PC	No	Zen	V	D-R	D-R	16
17	Reo	DFX Tonner	895	135	135	9000	3200	B 6.00/20	DB6.00/20	Own	205	25.3	51-2500	L	G	B	23½	10	4	7	PC	No	Zen	V	D-R	D-R	17
18	Rugby	6-15	865	135	151	7150	2850	B 5.50/20	P32x6	Con 22A	199	25.3	71-3300	L	C	C	23½	6	4	7	PC	No	Zen	V	D-R	D-R	18
19	Rugby	6-15	865	135	151	7150	2850	B 5.50/20	P32x6	Con 22A	199	25.3	71-3300	L	C	C	23½	6	4	7	PC	No	Zen	V	D-R	D-R	19
20	Schacht	10H, 1½-2½	156	195	156	195	4450	B 6.50/20	DB6.50/20	Con 16C	248	27.3	65-2600	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	20
21	Selden	317	142	162	7900	3900	P 32x6	P 32x6	Con 16C	248	27.3	65-2760	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	21	
22	Service	40	2990	168	188	7000	4000	P 34x5	DP34x5	Bud DW 6	331	33.7	64-2100	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	22
23	Service	511	1900	162	188	7000	4000	P 30x5	DP30x5	Bud HS6	241	62.7	53-2200	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	23
24	Sterling	FB30	795	142	162	7000	2950	B6.50/20	B6.50/20	Con 25A	214	27.8	72-3300	L	G	C	23½	6	4	7	PC	No	Zen	V	D-R	D-R	24
25	Sterling	FB35-1½	13	1075	142	162	3050	B6.50/20	B6.50/20	Con 25A	214	27.8	72-3300	L	G	C	23½	6	4	7	PC	No	Zen	V	D-R	D-R	25
26	Stewart	40X	995	130	160	8000	3215	B 6.50/20	DB6.50/20	Lyc AFE	199	25.3	50-2600	L	G	C	23½	7	4	7	PC	No	Zen	V	D-R	D-R	26
27	Stewart	40X	995	130	160	8000	3215	B 6.50/20	DB6.50/20	Lyc	199	25.3	50-2600	L	G	C	23½	7	4	7	PC	No	Zen	V	D-R	D-R	27
28	Stewart	34X	1195	145	176	8000	3710	B 6.50/20	DB6.50/20	Lyc 4SL	201	52.6	60-2800	L	G	C	23½	9	4	7	PC	No	Zen	V	D-R	D-R	28
29	Studebaker	S-20	695	130	160	8000	2840	B 6.00/20	P 32x6	Own	205	25.3	51-2500	L	G	B	23½	10	4	7	PC	No	Zen	V	D-R	D-R	29
30	White	6-21	2600	160	160	10500	4789	P 30x5	DP30x5	Own 4A	299	33.7	66-2100	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	30
31	Wichita	6-21	2600	160	160	10500	4789	P 30x5	DP32x6	Wau MS	315	33.7	70-2200	L	G	C	23½	12	4	7	PC	No	Zen	V	D-R	D-R	31
32	Willys Six	C-131	595	131	131	7000	2625	B 5.50/20	P 32x6	Own C-131	193	25.3	65-3400	L	G	C	23½	6	4	7	PC	No	Zen	V	D-R	D-R	32
33	Willys Six	C-137	595	131	131	7000	2625	B 5.50/20	P 32x6	Own C-137	193	25.3	65-3400	L	G	C	23½	6	4	7	PC	No	Zen	V	D-R	D-R	33
34	Witt-Will	S15B	2100	147	158	10500	4500	P 30x5	DP30x5	Con S4	255	32.8	50-2200	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	34
35	Witt-Will	C15B	2200	158	158	10500	5170	P 30x5	DP30x5	Con 16C	248	27.3	66-3200	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	35
36	Woods	DB-60	1545	150	166	10000	3900	B 6.50/20	DB6.50/20	Her WXA-2	224	25.3	61-2750	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	36
37	World	DB-60	1545	150	166	10000	3900	B 6.50/20	DB6.50/20	Lyc 4SL	224	25.3	61-2750	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	37
1¾ Ton																											
38	Condor	CB	1460	140	174	12000	4150	B 6.50/20	DB6.50/20	Lyc 4SL	224	25.3	61-2900	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	38
39	Federal	F7	1525	132	152	10000	3765	P 30x5	DP30x5	Con 16C	248	27.3	64-2500	L	G	C	23½	10	4	7	PC	No	Zen	V	D-R	D-R	39
40	Gramm	B	140	196	10000	4150	B 6.50/20	DB6.50/20	Lyc 4SL	224	25.3	61-2900	L	G	C	23½	8	4	7	PC	No	Zen	V	D-R	D-R	40	
2 Ton																											
41	Acme	4X	179	Op	12500	5500	B7.50/20	DB7.50/20	Con 16R	6-4x4½	311	38.4	73-2400	H	C	C	23½	13	4	7	PC	Ha	Str	M	A-L	A-L	41
42	Amer. LaF. Chief	GR	3650	180	Op	12000	6000	P 32x6	DP32x6	Own	331	33.7	65-2100	L	G	C	23½	9	4	7	PC	Ha	Str	M	A-L	A-L	42
43	Atterbury	9	160	160	10000	3955	P 32x6	DP32x6	Lyc 4SL	6-3½x4½	224	25.3	62-2800	L	G	C	23½	8	4	7	PC	Ha	Str	M	A-L	A-L	43
44	Atterbury	45	175	188	12000	5300	B 7.50/20	DB7.50/20	Lyc ASB	6-3½x4½	278	31.6	85-3000	L	G	C	23½	13	4	7	PC	Ha	Str	M	A-L	A-L	44
45	Autocar	A	3200	150	192	12000	5400	P 34x7	DP34x7	Own	358	38.4	82-2400	L	G	C	23½	13	4	7	PC	Ha	Str	M	A-L	A-L	45
46	Autocar	D	3500	150	192	12000	5400	P 34x7	DP34x7	Own	358	38.4	82-2400	L	G	C	23½	13	4	7	PC	Ha	Str	M	A-L	A-L	46
47	Available	T12	Op	Op	10000	5000	B 6.50/20	B 6.50/20	Wau ZK	6-3½x4½	221	27.3	62-3000	L</													

Line Number	Radiator Make	Clutch		Gearset		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number				
		Type and Make	Make and Model	No. of Forward Speeds	Aux. Locat. and Speeds		Make and Model	Final Drive and Type	Drive and Torque	Gear Ratios Reduc. in High Reduc. in Low	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame			Cab to Rear Axle	Width of Frame	Front	Rear
1 1/2 Ton—Cont'd																								
1	Mod	P. Own	W-G T7	U	4	No	M.M.5	Own 800	SF	H 6.50	42.9	Own 200	B4IM	295 21	Ros	6 1/2 x 2 1/4 x 1/4	T	98 1/2	55 1/2	32	40x2 1/4	52x2 1/4	1	
2	Per	P.B.L	B-L 214	U	4	No	Spl	Cla B370	BF	H 5.54	34.6	Cla F208	L4IH	220 TX	Ros	5 1/2 x 3 1/4 x 1/4	C	96	58	34 1/2	40x2 1/4	52x2 1/4	2	
3	Mod	D.B.L	B-L 214	U	4	No	Spl	Tim 53200H	BF	H 5.50	35.8	Tim 30000H	L4IH	308 TX	Ros	5 1/2 x 3 1/4 x 1/4	C	101	Opt	34	38x2 1/4	52x2 1/4	3	
4	Per	P.B.B	W-BB	U	4	No	Spl	Tim 52200 H	BF	R 5.83	35.8	Tim 1170H	L4IH	413 TX	Han	6x2x1/4	C	109	60 1/2	32	38x2	57 1/2 x 2 1/4	4	
5	Mod	D.B.L	B-L 31	U	4	No	Spl	Tim 54000H	BF	R 5.83	32.8	Tim 12703H	L4IH	279 CD	Ros	5x2x1/4 x 1/4	C	84	56	33	38x2 1/4	50x2 1/4	5	
6	Per	D.B.L	B-L 214	U	4	No	Spl	Tim 52300H	BF	H 5.83	37.4	Tim 12703H	L4IH	452 TD	Ros	6x3x1/4	C	Opt	Opt	34	38x2 1/4	54x2 1/4	6	
7	Chl	D.B.L	B-L 214	U	4	No	Spl	Tim 52200H	BF	H 5.83	37.4	Tim 12703H	L4IH	136 TX	Ros	6x3x1/4	C	96	58	34	37 1/2 x 2 1/4	49 1/2 x 2 1/4	7	
8	Per	D.B.L	B-L 114	U	4	No	Spl	Tim 54200H	BF	R 5.83	39.1	Tim 14703 H	L4IH	315 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	117 1/2	74 1/2	32	42 1/2 x 2 1/4	54x2 1/4	8	
9	Per	D.B.L	B-L 314	U	4	No	Spl	Tim 54200H	BF	H 4.86	30.6	Tim 14703H	L4IH	315 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	117 1/2	74 1/2	32	42 1/2 x 2 1/4	54x2 1/4	9	
10	Own	D. Own	Own BG	U	4	No	Spl	Tim 52000	SF	H 4.86	24.2	Own BL	L4IH	302 FX	Gem	7x3x1/4	C	109	64 1/2	33 1/2	40 1/2 x 2 1/4	52 1/2 x 2 1/4	10	
11	Mod	P.B.L	B-L 214	U	4	No	Pet	Tim 52000H	SF	H 4.85	Opt	Tim 11703H	L4IH	229 ID	Ros	6x2 1/2 x 1/4	C	108	72	34	40x2 1/4	50x3	11	
12	Lon	D. Ful	FuMGU U14	U	4	No	Blo	Own 30	2R	H 6.45	41.8	Tim 35000 H	L4IH	394 FX	Han	6x3x1/4	C	144	90	34	40x2 1/4	50x3	12	
13	Lon	P.B.L	B-L 20	U	4	No	Blo	Own 20	2R	H 6.00	30.0	Col 5530	L4IH	297 FX	Han	6x2 1/2 x 1/4	C	133 1/2	83	34	36x2 1/4	48x2 1/4	13	
14	Per	P.B.L	B-L 20	U	4	No	Blo	Cla B-373	SF	H 5.83	37.1	Col 4003	L4IH	437 TX	Ros	6 1/2 x 2 1/4 x 1/4	C	126	60 1/2	34	40x2 1/4	50x2 1/4	14	
15	Per	P.Lon	Cla	U	4	No	Cle	Cla B-373	SF	H 5.1	37.0	Own	L4IH	230 X	Ros	7x2 1/2 x 1/4	C	133 1/2	83	34	40x2 1/4	50x2 1/4	15	
16	Own	dp.Lon	Clark	U	4	No	Cle	Own	SF	H 5.2	34.1	Own	L4IH	289 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	97 1/2	52 1/2	40 1/2	38x2	50x2 1/4	16	
17	Own	dp.Lon	Clark	U	4	No	Cle	Own	SF	H 5.2	34.1	Own	L4IH	289 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	97 1/2	52 1/2	40 1/2	38x2	50x2 1/4	17	
18	McC	P.B.B	B-L	U	4	No	Spl	Sal	SF	H 5.38	34.5	Sal	S4IM	275 TX	War	6x2 1/2 x 1/4	C	91 1/2	37 1/2	34	36 1/2 x 2	50x2 1/4	18	
19	McC	P.B.B	B-L	U	4	No	Spl	Sal	SF	H 5.38	34.5	Sal	S4IM	275 TX	War	6x2 1/2 x 1/4	C	91 1/2	37 1/2	34	36 1/2 x 2	50x2 1/4	19	
20	You	P.B.B	Ful Wo	U	4	No	Spl	Tim 53200H	BF	H 5.83	31.2	Tim 30000H	L4IH	380 TX	Ros	6x3x1/4	P	144	90	34	40x2 1/4	50x3	20	
21	Own	D.B.L	B-L 35	U	4	No	Blo	Tim	BF	H 5.83	31.2	Tim	L4IH	380 TX	Ros	6x3x1/4	P	144	90	34	40x2 1/4	50x3	21	
22	Lon	D. Ful	FuMGU	U	4	No	Blo	Tim 63702	WF	H 6.5	34.8	Tim 35000 H	L4IH	394 FX	Han	6x3x1/4	P	144	90	34	40x2 1/4	50x3	22	
23	Lon	P.B.L	B-L 20	U	4	No	Blo	Tim 54000	SF	H 5.8	29.2	Col 5530	L4IH	297 FX	Han	6x2 1/2 x 1/4	P	133 1/2	83	34	36x2 1/4	48x2 1/4	23	
24	Per	P.B.B	Cov F4B	U	4	No	Spl	Tim	BF	H 5.6	36.7	Tim	L4IH	269 TX	Ros	6x2 1/2 x 1/4	C	96	57	34	38x2 1/4	50x2 1/4	24	
25	Per	P.B.B	War T9	U	4	No	Spl	Cla	BF	H 5.66	36.2	Cla	L4IH	228 TX	Ros	6x2 1/2 x 1/4	C	97	57	34	38x2 1/4	50x2 1/4	25	
26	Fed	P.B.B	War	U	4	No	Spl	Cla	BF	H 5.6	36.2	Cla	B4IM	...	TX	Ros	7 1/2 x 2 1/4 x 1/4	C	77	40	34	36x2 1/4	50x2 1/4	26
27	Fed	P.B.B	War	U	4	No	Spl	Cla	BF	H 5.6	36.2	Cla	B4IM	...	TX	Ros	7 1/2 x 2 1/4 x 1/4	C	77	40	34	36x2 1/4	50x2 1/4	27
28	Own	P.B.B	War	U	4	No	Spl	Cla	SF	H 5.6	22.0	Cla	B4IM	...	TX	Ros	7 1/2 x 2 1/4 x 1/4	C	194	48	32	38x2 1/4	50x2 1/4	28
29	McC	Lon	War T-9	U	4	No	Spl	Clark B-373	SF	H 5.66	35.8	Clark 208B	B4IM	224	Ros	6x2 1/2 x 1/4	C	115	50 1/2	34	36x1 1/2	45x2 1/4	29	
30	Own	P. Own	Own 5B	U	4	No	Spl	Own 7C	SF	H 6.67	23.4	Own 7D	L4IH	349 CX	Han	6 1/2 x 3 1/4 x 1/4	C	115	68 1/2	34 1/2	41x2 1/4	54x3	30	
31	You	D. Ful	Ful MLU	U	4	No	Spl	Own 30R	WF	H 6.57	34.8	She 3FA10	O2IM	320 RI	Ros	5 1/2 x 2 1/4 x 1/4	C	130	78 1/2	30	40x2 1/4	50x3	31	
32	Fed	P.B.B	War	U	4	No	Spl	Cla	SF	H 5.6	36.2	Cla	B4IM	235	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	32
33	Fed	P.B.B	War	U	4	No	Spl	Cla	SF	H 5.6	36.2	Cla	B4IM	235	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	33
34	Per	D.B.L	B-L 20	U	4	No	Spl	Tim 53200H	BF	H 5.66	36.3	Tim 30000H	L4IH	...	TX	Ros	6x2 1/2 x 1/4	C	121 1/2	71 1/2	37	36x1 1/2	45x2 1/4	34
35	Per	D.B.L	B-L 20	U	4	No	Spl	Tim 53200H	BF	H 5.66	36.3	Tim 30000H	L4IH	...	TX	Ros	6x2 1/2 x 1/4	C	121 1/2	71 1/2	37	36x1 1/2	45x2 1/4	35
36	Chl	D.B.L	B-L	U	4	No	Blo	Tim	SF	H Opt	Opt	Tim	L4IH	380 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	Opt	Opt	Opt	Opt	Opt	Opt	36
37	Per	dp.Lon	WG T9	U	4	No	Spl	Tim 53200H	SF	H 6.38	40.8	Tim 30000H	L4IH	377 TX	Ros	6 1/2 x 2 1/4 x 1/4	T	126	70	34	38x2 1/4	54x2 1/4	37	
13 1/2 Ton																								
38	Per	D. Own	Cov A4J	U	4	No	Blo	Tim 54200H	BF	H 5.83	37.1	Col 4003	L4IH	278 FD	Ros	6x2 1/2 x 1/4	C	94	60 1/2	34	40x2 1/4	50x2 1/4	38	
39	Lon	P.B.B	Cov A4J	U	4	No	Pet	Tim 52005 H	BF	H 5.83	29.2	Tim 11704 H	L4IH	437 TI	Gem	6x2 1/2 x 1/4	C	95	51	34	38x2 1/4	50x2 1/4	39	
40	Per	D. Own	Cov A4J	U	4	No	Blo	Tim 54200H	BF	H 5.83	37.1	Col 4003	L4IH	452 FD	Ros	6x2 1/2 x 1/4	C	94	60 1/2	34	40x2 1/4	50x2 1/4	40	
2 Ton																								
41	Per	P.B.B	B-L 314	U	4	No	Spl	Tim 56200H	BF	R 6.16	40.6	Tim 33000H	L4ID	578 TX	Ros	6 1/2 x 3 1/4 x 1/4	P	144	92	34	38x2 1/4	54x2 1/4	41	
42	G&O	P.B.B	Cov F4B	U	4	No	Spl	Tim 56200H	BF	R 6.16	40.6	Tim 33000H	L4ID	578 TX	Ros	6 1/2 x 3 1/4 x 1/4	P	144	92	34	38x2 1/4	54x2 1/4	42	
43	Per	P.B.B	Cov W4C	U	4	No	Spl	Tim 54200H	B	H 6.80	45.1	Tim 31000H	L4IH	450	...	Ros	5 1/2 x 3 1/4 x 1/4	C	142	81 1/2	34	38x2 1/4	50x7 1/4	43
44	Per	P.B.B	Cov W4C	U	4	No	Spl	Tim 54200H	B	H 6.80	39.8	Tim 31000H	L4IH	450	...	Ros	5 1/2 x 3 1/4 x 1/4	C	149	92	34	39x2 1/4	56x3	44
45	Per	dp.Lon	Own T	U	4	No	Spl	Own SA	SF	H 5.22	27.9	Tim 14703H	L04ID	460 2IM	Ros	6 1/2 x 3 1/4 x 1/4	C	115 1/2	63 1/2	34	40x2 1/4	54x3	45	
46	Per	dp.Lon	Own T	U	4	No	Spl	Own SD	SF	H 5.22	27.9	Tim 14703H	L04ID	460 2IM	Ros	6 1/2 x 3 1/4 x 1/4	C	115 1/2	63 1/2	34	40x2 1/4	54x3	46	
47	Chl	P. Own	W-G T9	U	4	No	Spl	Tim 53200 H	SF	H 5.6	36.2	Tim 30000 H	L4IH											

Line Number	Make, Model and Capacity	General		Tire Size		Make and Model	Engine										Fuel System		Electrical System		Line Number					
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)		Chassis Wt. (Stripped)	Front	Rear	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make
2 Ton—Cont'd																										
1	Schacht... 20H-2-3	160	199	.....	5100	B 7.50/20	DB7.50/20	Her WXB	6-3 1/4 x 5 1/2	298.0	33.7	66-2200	L	G	G	G	13 1/2	7 1/2	7	PC	No	Zen	G	A-L	A-L	1
2	Service... 40	3240	168	185	4900	P 36x6	DP36x6	Bud DW6	6-3 1/4 x 5 1/2	331.0	33.7	64-2100	L	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	G	A-L	A-L	2
3	Service... 811	2030	162	182	4500	P 32x6	DP32x6	Bud H86	6-3 1/4 x 5 1/2	241.6	27.3	63-2000	L	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	3
4	Sterling... FB45	1485	159	182	4080	B 6.50/20	DB 6.50/20	Con 16C	6-3 1/4 x 5 1/2	248.	28.0	66-3000	L	G	G	G	13 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	4
5	Sterling... FB55-2, 2 1/2 T	1850	159	182	4580	B 7.00/20	DB7.00/20	Con 16C	6-3 1/4 x 5 1/2	248.	28.0	66-3000	L	G	G	G	13 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	5
6	Stewart... 28X	1495	136	176	4058	B 6.50/20	DB6.50/20	Lyc 48L	6-3 1/4 x 5 1/2	224.0	25.3	61-2600	L	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	6
7	Stewart... 29XS	1695	145	176	4960	P 32x6	DP32x6	Lyc ASA	6-3 1/4 x 5 1/2	278	31.5	85-3100	L	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	7
8	Studebaker... S-50	920	148	160	3710	B 6.50/20	DB 6.50/20	Own	6-3 1/4 x 5 1/2	205	25.4	70-3200	L	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	8
9	White... 1-24-A	56	3125	165	5276	S 36x4	S 36x7	Own GRC	4-4 1/2 x 5 1/2	289	25.6	45-1600	L	L	L	L	11 1/2	4 1/2	3	FP	Own	Zen	V	D-R	D-R	9
10	White... 160-161 1 to 2 T	611	2450	148	4980	B 7.00/20	B 7.00/20	Own 4A	6-3 1/4 x 5 1/2	289	25.6	45-1800	L	L	L	L	11 1/2	4 1/2	3	FP	Own	Zen	V	D-R	D-R	10
11	White... 162 1 to 2 T	138	157	.....	10000	4260	B 7.00/20	DB7.00/20	Own GRCB	4-4 1/2 x 5 1/2	289	25.6	45-1800	L	L	L	11 1/2	4 1/2	3	FP	Own	Zen	V	D-R	D-R	11
12	Witt-Will... C2B	2450	158	.....	12500	5400	B 6.50/20	DB6.50/20	Con 16C	6-3 1/4 x 5 1/2	248	27.3	66-3200	L	L	L	10 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	12
13	Witt-Will... C2W	2550	158	.....	12500	5400	B 6.50/20	DB6.50/20	Con 16C	6-3 1/4 x 5 1/2	248	27.3	66-3200	L	L	L	10 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	13
14	Witt-Will... R2B	2550	158	.....	12500	5820	B 6.50/20	DB6.50/20	Con 16R	6-4 1/4 x 5 1/2	311	38.4	72-2400	H	C	C	10 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	14
15	Witt-Will... R2	2550	158	.....	12500	5800	B 6.50/20	DB32x6	Con 16R	6-4 1/4 x 5 1/2	311	38.4	72-2400	H	C	C	10 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	15
16	Witt-Will... R2	2550	158	.....	12500	5275	B 7.50/20	Her WXB	6-3 1/4 x 5 1/2	224	25.3	61-2750	L	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	16
17	World... DC-60	150	164	.....	12000	4450	B 7.00/20	Lyc 48L	6-3 1/4 x 5 1/2	224	25.3	61-2750	L	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	17
18	World... DA-88	2300	151	167	12000	4720	B 7.50/20	Lyc GU	8-3 1/4 x 4 1/2	268	28.8	96-3400	L	C	C	8 1/2	5	5	CC	Ha	Zen	M	A-L	A-L	18	
2 1/2 Ton																										
20	Amer. LaF... Chief 9R	3900	180	Op	14000	6200	P 34x7	DP34x7	Own	6-3 1/4 x 5 1/2	331.0	33.7	65-2100	L	L	L	9	4	FP	On	Str	V	D-R	D-R	20	
21	Atterbury... 50	189	202	.....	14000	5800	B 8.25/20	DB8.25/20	Lyc ASD	6-3 1/4 x 5 1/2	298.0	33.7	85-2800	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	21
22	Autocar... D	3500	150	192	16000	5710	P 34x7	DP34x7	Own	6-3 1/4 x 5 1/2	315	33.8	82-2400	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	22
23	Available... T-23	Op	Op	Op	14000	5800	B 7.50/20	DP7.50/20	Wau MS	6-3 1/4 x 5 1/2	315	33.8	73-2300	L	L	L	12 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	23
24	Available... T-27	Op	Op	Op	14000	6000	B 7.50/20	DP7.50/20	Wau MS	6-3 1/4 x 5 1/2	315	33.8	73-2300	L	L	L	12 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	24
25	Brookway... 140	156	188	.....	14000	6100	P 34x7	DP34x7	Con	6-4 1/4 x 5 1/2	311.0	38.4	73-2400	H	C	C	13 1/2	7 1/2	7	CC	No	Zen	M	A-L	A-L	25
26	Brookway... 2 1/2-3T-141	170	200	.....	17000	6200	P 32x6	DP32x6	Con	6-4 1/4 x 5 1/2	311.0	38.4	73-2400	H	C	C	13 1/2	7 1/2	7	CC	No	Zen	M	A-L	A-L	26
27	Chicago... 1-24-A	160	208	.....	13273	5773	B 8.25/20	DB8.25/20	Wau 6ML	6-4 1/4 x 5 1/2	358.0	38.4	77-2200	L	L	L	12 1/2	7 1/2	7	CC	No	Zen	M	A-L	A-L	27
28	Coleman... C30	120	144	.....	12800	7700	B 9.00/20	B 9.00/20	Bud DW6	6-3 1/4 x 5 1/2	331.0	33.7	74-2400	L	L	L	9 1/2	4	FP	On	Str	V	D-R	D-R	28	
29	Commerce... 40	4580	175	192	17500	7000	P 36x6	DP36x6	Bud BA-6	6-4 1/4 x 5 1/2	410.9	40.8	83-2100	L	L	L	7 1/2	4	FP	On	Str	V	D-R	D-R	29	
30	Commerce... 40	3240	168	185	5100	P 36x6	DP36x6	Bud DW6	6-3 1/4 x 5 1/2	331.0	33.7	64-2100	L	L	L	7 1/2	4	FP	No	Zen	V	D-R	D-R	30		
31	Concor... CD	1950	160	196	17000	5200	B 7.50/20	DB7.50/20	Lyc ASD	6-3 1/4 x 5 1/2	299.0	33.7	85-2800	L	L	L	9 1/2	4	FP	No	Zen	M	D-R	D-R	31	
32	Day Elder... 130	2225	157	199	6600	6000	B 7.50/20	DB7.50/20	Con 16R	6-4 1/4 x 5 1/2	311.0	38.4	73-2400	H	C	C	13 1/2	7 1/2	7	CC	No	Zen	M	D-R	D-R	32
33	Diamond T... 303	1585	160	185	13500	4870	B 7.00/20	DB7.00/20	Her WXB	6-3 1/4 x 5 1/2	298.0	33.7	57-2400	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	M	A-L	A-L	33
34	Diam. T... 303FB, 2-2 1/2	2175	199	.....	15000	6100	B 7.50/20	DB7.50/20	Her WXB	6-4 1/4 x 5 1/2	339.0	38.4	74-2400	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	M	A-L	A-L	34
35	Diamond T... 551-2 1/2-3	2250	168	186	15500	6000	B 7.50/20	DB7.50/20	Her WXB	6-4 1/4 x 5 1/2	339.0	38.4	74-2400	L	L	L	13 1/2	7 1/2	7	CC	No	Zen	M	A-L	A-L	35
36	Douglas... CD	3855	190	Op	17500	5800	P 34x7	P 36x8	Bud EBU-I	6-4 1/4 x 5 1/2	312.0	28.9	49-1900	L	L	L	10 1/2	4	FP	On	Str	V	D-R	D-R	36	
37	Douglas... CD6	3955	190	Op	17500	5800	P 34x7	P 36x8	Bud DW6	6-4 1/4 x 5 1/2	331.0	33.7	73-2400	L	L	L	10 1/2	4	FP	On	Str	V	D-R	D-R	37	
38	Fagel... 250	2750	178	196	5750	P 34x7	DP34x7	Wau MK	6-4 1/4 x 5 1/2	381	40.8	82-2200	L	L	L	12 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	38	
39	Federal... A6T	2185	151	176	15000	5110	P 32x6	DP32x6	Con 16C	6-3 1/4 x 5 1/2	248	27.3	64-2500	L	L	L	10 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	39
40	Federal... A6T	2360	151	176	15000	5110	P 32x6	DP32x6	Con 16C	6-3 1/4 x 5 1/2	248	27.3	64-2500	L	L	L	10 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	40
41	Federal... T3W	2130	148	185	14000	5110	P 32x6	P 36x8	Wau V	4-4 1/2 x 5 1/2	251	25.6	50-2000	L	L	L	7 1/2	3	CC	On	Str	V	D-R	D-R	41	
42	Federal... T8WF	2285	141	185	15000	5400	P 32x6	DP32x6	Con 16C	6-3 1/4 x 5 1/2	248	27.3	64-2500	L	L	L	10 1/2	7 1/2	7	CC	No	Zen	V	D-R	D-R	42
43	Fisher-Standard... 25A	1662	141	181	14000	4900	P 32x6	DP32x6	Con 16C	6-3 1/4 x 5 1/2	248	27.3	65-2700	L	L	L	10 1/2	7 1/2	7	CC	No	Zen	M	A-L	A-L	43
44	F.W.D... HB6	4000	138	170	12900	6400	P 36x8	P 36x8	Wau MK	6-4 1/4 x 5 1/2	381.0	40.8	85-2400	L	L	L	12 1/2	7 1/2	7	CC	No	Zen				

Line Number	Radiator Make	Clutch	Gear Set		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number						
			Type and Make	Make and Model		Final Drive and Type	Gearing	Service	Area Service Brakes	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear								
																				Locat.	No. of Forward Speeds	Aux. Locat. and Speeds	Drive and Torque	Reduc. in High	Reduc. in Low
2 Ton—Cont'd																									
1	You	D.B.&B	Ful MLU	U	4	No	Spl	Tim 54200 H	BF	H	6.06	38.5	Tim 12703 H	L4IHV	452 TX	Ros	6x3x1/4	P	Opt	31 1/2	40x2 1/4	50x3	1		
2	Lon	D.Ful	Ful MGU	U	4	No	Blo	Tim 63702	WF	H	6.5	34.8	Tim 35000 H	L4IH	394 FX	Han	6x3x1/4	P	Opt	144	90	34	40x2 1/4	50x3	2
3	Lon	P.B.-L	B-L 20	U	4	No	Blo	Tim 54000	SF	H	5.8	29.2	Col 5530	L4IH	297 FX	Han	6x2 1/4 x 1/4	P	Opt	133 1/2	83	34	36x2 1/4	48x2 1/4	3
4	Per	P.B.&B	War T9	U	4	No	Spl	Tim 54000	SF	H	5.8	29.2	Col 5530	L4IH	228 TX	Ros	6x2 1/4 x 1/4	P	Opt	116	76	34	42x2 1/4	54x2 1/4	4
5	Per	D.B.-L	B-L 214	U	4	No	Spl	Tim 54000	SF	H	5.8	29.2	Col 5530	L4IHV	282 TX	Ros	6x2 1/4 x 1/4	P	Opt	116	76	34	42x2 1/4	54x3	5
6	Own	D.Ful	Ful	U	4	No	Spl	Tim 54000	SF	H	6.37	47.0	Tim	B4IM	... TX	Ros	7 1/2 x 2 1/4 x 1/4	C	Opt	114 1/4	63 1/2	32	38 1/2 x 2 1/4	50x2 1/4	6
7	McC	D.B.-L	B-L 35-4	U	4	No	Spl	Tim 54000	SF	H	5.8	29.2	Col 5530	B4IM	... TX	Ros	7 1/2 x 2 1/4 x 1/4	C	Opt	114 1/4	63 1/2	32	38 1/2 x 2 1/4	50x3	7
8	Own	P.Own	OwnGRBB	U	4	No	Cle	Tim 54200-A1	SF	H	6.8	43.5	Tim	B4IM	276	Ros	6x2 1/4 x 1/4	C	Opt	106 1/2	69 1/2	34	39x2	56x3	8
9	Own	P.Own	Own 5B	U	4	No	Spl	Own 56	SF	H	6.3	26.2	Own 3DI	O2IM	268 FX	Own	7x3x1/4	C	Opt	119 1/2	81 1/2	36	41 1/2 x 2 1/4	47 1/2 x 3	9
10	Own	P.Own	Own 8B	U	4	No	Spl	Own 7C	SF	H	5.67	23.4	Own 7D	L4IH	349 OF	Han	6 1/2 x 3 1/4 x 1/4	C	Opt	115 1/2	68 1/2	34 1/2	41x2 1/4	54x3	10
11	Own	P.Own	Own 8B	U	4	No	Spl	Own 4C	SF	H	4.73	19.5	Own 4D	L4IH	138 TX	Han	6x2 1/4 x 1/4	C	Opt	112	58 1/2	34 1/2	39x2 1/4	50x2 1/4	11
12	Own	P.Own	Own 8B	U	4	No	Spl	Own 4CB	SF	H	4.73	19.5	Own 4D	L4IH	138 TX	Han	6x2 1/4 x 1/4	C	Opt	112	58 1/2	34 1/2	39x2 1/4	50x2 1/4	12
13	Per	D.B.-L	B-L 35-4	U	4	No	Spl	Tim 56200H	WF	H	6.16	36.4	Tim 33000H	L4IH	578 TX	Ros	6x2 1/4 x 1/4	C	Opt	112	58 1/2	34 1/2	39x2 1/4	50x3	13
14	Per	D.B.-L	B-L 35-4	U	4	No	Spl	Tim 64800H	WF	H	7.4	41.0	Tim 33000H	L4IH	578 TX	Ros	6x2 1/4 x 1/4	C	Opt	112	58 1/2	34 1/2	39x2 1/4	54x3	14
15	Per	D.B.-L	B-L 35-4	U	4	No	Spl	Tim 56200H	WF	H	5.28	28.3	Tim 33000H	L4IH	578 TX	Ros	6x2 1/4 x 1/4	C	Opt	112	58 1/2	34 1/2	39x2 1/4	54x3	15
16	Per	D.B.-L	B-L 35-4	U	4	No	Spl	Tim 64800H	WF	H	6.0	32.1	Tim 33000H	L4IH	578 TX	Ros	6x2 1/4 x 1/4	C	Opt	112	58 1/2	34 1/2	39x2 1/4	54x3	16
17	Chl	D.B.-L	B-L 314	U	4	No	Blo	Tim	SF	H	Opt	Opt	Tim 31000H	L4IH	452 TX	Ros	6x2 1/4 x 1/4	C	Opt	126	70	34	40x2 1/4	49x2 1/4	17
18	Per	P.Own	WG-T9	U	4	No	Blo	Tim 54200H	SF	H	6.8	43.5	Shu 5427	L4IH	452 TX	Ros	6x3x1/4	P	Opt	126	70	34	38x2 1/4	54x2 1/4	18
19	Per	dp.Lon	Ful MLU	U	4	No	Blo	Tim 54200H	SF	H	6.8	44.2	Shu 5427	L4IH	452 TD	Ros	6x3x1/4	T	Opt	126	71	34	38x2 1/4	54x2 1/4	19
2 1/2 Ton																									
20	G&O	P.B.&B	Own	A	4	No	Spl	Tim 65000BX	WF	R	6.0	28.8	Tim 14703BX	B4IM	TD	Ros	6 1/2 x 2 1/4 x 1/4	C	Opt	173	105	34	42x2 1/4	54x3	20
21	Per	P.B.&B	Cov W4C	U	4	No	Spl	Tim 56200H	BF	H	7.40	43.3	Tim 33010H	L4IH	540	Ros	7x3 1/4 x 1/4	C	Opt	173	105	34	39x2 1/4	56x3	21
22	Per	dp.Lon	Own T	U	4	No	Spl	Own 8D	2F	H	6.27	33.5	Tim 14703H	LO4ID	210	Ros	6 1/2 x 3 1/4 x 1/4	C	Opt	115 1/2	63 1/2	34	40x2 1/4	54x3	22
23	You	D.B.-L	B-L 314	U	4	No	Blo	Tim 56200H	BF	H	7.4	48.8	Tim 33000	L4IH	552 TX	Ros	6x2 1/4 x 1/4	C	Opt	115 1/2	63 1/2	34	38x2 1/4	50x3	23
24	You	D.B.-L	B-L 314	U	4	No	Spl	Tim 64800H	WF	R	7.4	48.8	Tim 35000	L4IH	552 TX	Ros	7x2 1/4 x 1/4	C	Opt	115 1/2	63 1/2	34	40x2 1/4	50x3	24
25	G&O	D.B.-L	B-L	U	4	No	Spl	Wls	2F	H	6.6	35.5	Col	L4IHV	386 CD	Ros	7 1/2 x 3 1/4 x 1/4	C	Opt	108	69	34	40x2 1/4	54x3	25
26	G&O	D.B.-L	B-L	U	4	No	Spl	Wls	2F	H	7.0	46.2	Shu	L4IHV	380 CD	Ros	7 1/2 x 3 1/4 x 1/4	C	Opt	112	84	34	40x2 1/4	54x3	26
27	Chl	D.B.-L	B-L 314	U	4	No	Spl	Tim 58200H	BF	H	6.8	44.9	Tim 33020H	L4IH	381 TX	Ros	7x4x1/4	C	Opt	108	78	30	48x3	54x3	27
28	Per	D.Ful	Ful G U14	U	4	No	Spl	Wls	2F	H	6.05	154	Wls	L4IH	381 TX	Ros	10x2 1/4 x 1/4	C	Opt	108	78	30	48x3	54x3	28
29	Lon	D.Ful	Ful MGU	U	4	No	Spl	Tim 65706Dh	WF	H	6.5	63.0	Tim 15733 H	L4IH	584 FX	Han	7x3 1/4 x 1/4	P	Opt	156	97 1/2	34	42x2 1/4	54x3	29
30	Lon	D.Ful	Ful MGU	U	4	No	Spl	Tim 63702	WF	H	6.5	34.8	Tim 35000 H	L4IH	394 FX	Han	6x3x1/4	P	Opt	144	90	34	40x2 1/4	50x3	30
31	Per	D.B.-L	B-L 314	U	4	No	Spl	Tim 56200H	BF	H	6.2	31.7	Col 5550	L4IHV	339 FD	Ros	7x2 1/4 x 1/4	C	Opt	120	77 1/2	34	42x2 1/4	56x3	31
32	Per	P.B.-L	B-L 314	U	4	No	Spl	Tim 56200H	BF	H	6.8	16.40	Tim 33000H	L4IH	578 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	Opt	124 1/2	69	33 1/2	40x2 1/4	56x3	32
33	G&O	P.B.&B	Cov	U	4	No	Spl	Clas B613	SF	H	Opt	Opt	Clas F308	L4IHV	350 TD	Ros	6 1/2 x 3 1/4 x 1/4	C	Opt	117	73 1/2	34	45 1/2 x 2 1/4	53x2 1/4	33
34	G&O	P.B.&B	Cov	U	4	No	Spl	Clas B613	SF	H	Opt	Opt	Clas F308	L4IHV	350 TD	Ros	6 1/2 x 3 1/4 x 1/4	C	Opt	117	73 1/2	34	45 1/2 x 2 1/4	53x2 1/4	34
35	G&O	D.Cov	Cov	U	4	No	Spl	Tim 58200H	SF	H	Opt	Opt	Shu 5582B	L4IHV	408 TD	Ros	6 1/2 x 3 1/4 x 1/4	C	Opt	135	81 1/2	34	45 1/2 x 2 1/4	56x3	35
36	Own	D.Ful	FulMGU14	U	4	No	Spl	Wls 8817	2F	H	7.85	51.0	Shu 5550	W2IMV	538 CX	Ros	7x2 1/4 x 1/4	T	Opt	192	104	31	46x2 1/4	54x3	36
37	Own	D.Ful	FulMGU14	U	4	No	Spl	Wls 8817	2F	H	7.85	51.0	Shu 5550	W2IMV	538 CX	Ros	7x2 1/4 x 1/4	T	Opt	192	104	31	46x2 1/4	54x3	37
38	Per	P.B.-L	B-L 314	U	4	No	Spl	Tim 56200H	BF	H	6.16	36.4	Tim 33020H	L4IH	578 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	Opt	112	58 1/2	34 1/2	39x2 1/4	50x2 1/4	38
39	Lon	P.B.&B	Own	A	4	No	Spl	Tim 58000H	SF	H	7.80	49.9	Clas F304	L4IHV	659 TI	Ros	6x3 1/2 x 1/4	C	Opt	119	71	34	40x2 1/4	51 1/2 x 3	39
40	Lon	P.B.&B	Own	A	4	No	Spl	Tim 65001H	WF	H	7.85	52.9	Clas F304	L4IHV	659 TI	Ros	6x3 1/2 x 1/4	C	Opt	119	71	34	40x2 1/4	51 1/2 x 3	40
41	Lon	P.B.&B	Own	A	4	No	Spl	Tim 64603 H	WF	R	7.25	36.3	Own	L4IH	575 TI	Ros	6x3 1/2 x 1/4	C	Opt	119	71	34	38x2 1/4	52x3	41
42	Lon	P.B.&B	Own	A	4	No	Spl	Tim 65600 HP	WF	R	7.75	38.8	Own	L4IH	575 TI	Ros	6x3 1/2 x 1/4	C	Opt	119	71	34	38x2 1/4	52x3	42
43	Lon	B-L	B-L 314	U	4	No	Spl	Tim 54200H	FF	R	5.83	38.5	Tim 31000H	L4IH	380 TX	Ros	6x2 1/4 x 1/4	C	Opt	130	86 1/2	32	40x2 1/4	54x3	43
44	Per	D.B.-L	B-L 55	U	4	No	Spl	Own	WF	H	6.95	84.7	Tim 35000H	O4XIM	252 TI	Ros	5 1/2 x 2 1/4 x 1/4	C	Opt	12					

Line Number	Make, Model and Capacity	General			Tire Size		Engine														Fuel System	Electrical System	Line Number				
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make	Carburetor Make		Fuel Feed	Ignition System Make	Generator, Starter Make	
3 Ton—Cont'd																											
1	Chicago.....1-30-A.....	160	208	15740	6740	B 9.00/20	DB9.00/20	Wau 6ML	6-4x4 3/4	358	38.4	77-2200	L	G	C	C	2 3/4	12 1/2	7	FP	Wau	Str	M	A-L	A-L	1	
2	Clinton.....05.....	154	Op	14500	5925	S 34x5 1/2	DS34x5 1/2	Bud ETU	4-4 1/2x5 1/2	312.0	28.9	49-1900	L	G	C	C	2 3/4	10 1/2	7	FP	Wau	Str	M	A-L	A-L	2	
3	Coleman.....D40.....	130	180	17000	5500	B 9.75/24	B 9.75/24	Bud DW 6	6-3 1/2x5 1/2	330.0	33.7	73-2100	L	G	C	C	2 3/4	9	4	FP	No	Str	V	A-L	A-L	3	
4	Commerce.....60.....	175	192	17500	7100	P 36x8	DP36x8	Bud BA-6	6-3 1/2x5 1/2	410.9	40.8	83-2100	L	G	C	C	2 3/4	9 1/2	4	FP	No	Str	V	A-L	A-L	4	
5	Concord.....JX-6.....	154	174	17200	6700	P 34x7	DP34x7	Bud DW 6	6-3 1/2x5 1/2	330.0	33.7	73-2100	L	G	C	C	2 3/4	9 1/2	4	FP	No	Str	V	A-L	A-L	5	
6	Concor.....CE.....	2530	190	224	5950	B 8.25/20	DB8.25/20	Lyc TS	6-3 1/2x5 1/2	353.8	36.2	98-2700	L	G	C	C	2 3/4	10	4	FP	No	Str	V	A-L	A-L	6	
7	Concor.....CEB.....	190	190	17000	7200	B 7.50/20	DB7.50/20	Con 20-R	6-4 1/2x4 1/2	380.8	40.8	90-2200	L	H	C	C	2 3/4	13 1/2	7	FP	No	Str	V	A-L	A-L	7	
8	(Z) Corbitt.....12W6.....	165	220	14700	4910	B 7.50/20	DB7.50/20	Con 16R	6-4 1/2x4 1/2	311.0	38.4	72-2400	H	C	C	C	2 3/4	11 1/2	7	FP	No	Str	V	A-L	A-L	8	
9	(Z) Corbitt.....12B6.....	163	220	14700	4870	B 7.50/20	DB7.50/20	Con 16R	6-4 1/2x4 1/2	311.0	38.4	72-2400	H	C	C	C	2 3/4	11 1/2	7	FP	No	Str	V	A-L	A-L	9	
10	Day-Elder.....1204.....	160	2795	16000	6800	B 7.50/20	DB7.50/20	Con 18R	6-4 1/2x4 1/2	339.0	38.4	82-2400	H	C	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	10	
11	Diamond T.....551.....	2250	168	186	6000	B 7.50/20	DB7.50/20	Her WXC	6-4 1/2x4 1/2	339.0	38.4	74-2400	L	G	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	11	
12	Diamond T.....504.....	2650	166	208	6350	B 8.25/20	DB8.25/20	Her WXC	6-4 1/2x4 1/2	339.0	38.4	74-2400	L	G	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	12	
13	Diamond T.....506.....	2590	174	240	6350	B 8.25/20	DB8.25/20	Her WXC3	6-4 1/2x4 1/2	384.0	43.3	85-2200	L	G	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	13	
14	Diamond T 603-3.4Ton	3300	169	230	7500	B 9.00/20	DB9.00/20	Her YXC	6-4 1/2x4 1/2	428.4	45.9	94-2200	L	G	C	C	2 3/4	15	7	FP	Ha	Zen	M	A-L	A-L	14	
15	Diamond T 606-3.4Ton	3600	177	244	7500	B 9.00/20	DB9.00/20	Her RXB	6-4 1/2x4 1/2	500.9	48.6	110-2200	L	G	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	15	
16	Dodge Bros.....1515.....	135	135	12250	4235	P 32x6	DP32x6	Own	6-3 1/2x4 1/2	241.0	27.3	78-3000	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Ste	M	A-L	A-L	16	
17	Dodge Bros.....1565.....	135	135	12250	4235	P 32x6	DP32x6	Own	6-3 1/2x4 1/2	241.0	27.3	78-3000	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Ste	M	A-L	A-L	17	
18	Dodge Bros.....1615.....	185	185	12715	4715	P 32x6	DP32x6	Own	6-3 1/2x4 1/2	241.0	27.3	78-3000	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Ste	M	A-L	A-L	18	
19	Dodge Bros.....F-60.....	2645	146	146	5543	P 32x6	DP32x6	Own	6-3 1/2x5 1/2	309.6	31.5	96-3000	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Ste	M	A-L	A-L	19	
20	Dodge Bros.....F-61.....	2575	170	170	5789	P 32x6	DP32x6	Own	6-3 1/2x5 1/2	309.6	31.5	96-3000	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Ste	M	A-L	A-L	20	
21	Dodge Bros.....F-62.....	2695	195	195	5901	P 32x6	DP32x6	Own	6-3 1/2x5 1/2	309.6	31.5	96-3000	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Ste	M	A-L	A-L	21	
22	Douglas.....D4.....	4010	186	Op	20000	6500	S 36x10	Bud YBU-I	4-4 1/2x6	381.0	32.4	50-1400	L	G	C	C	2 3/4	9 1/2	4	FP	Ha	Ste	M	A-L	A-L	22	
23	Douglas.....D6.....	4340	186	Op	20000	6500	S 36x10	Bud YBU-I	4-4 1/2x6	381.0	32.4	50-1400	L	G	C	C	2 3/4	9 1/2	4	FP	Ha	Ste	M	A-L	A-L	23	
24	Douglas.....D6 Sp.....	5500	216	Op	22000	7200	S 36x10	Bud K428	6-4 1/2x4 1/2	312.0	28.9	507-2100	L	G	C	C	2 3/4	10 1/2	7	FP	No	Str	V	A-L	A-L	24	
25	Duplex.....FAC.....	4250	166	16000	7200	S 34x5	S 36x8	Bud EBU-1	4-4 1/2x5 1/2	312.0	28.9	507-2100	L	G	C	C	2 3/4	10 1/2	7	FP	No	Str	V	A-L	A-L	25	
26	Duplex.....SAC.....	4750	166	16000	7400	S 34x5	S 36x8	Bud K428	4-4 1/2x5 1/2	312.0	28.9	507-2100	L	G	C	C	2 3/4	10 1/2	7	FP	No	Str	V	A-L	A-L	26	
27	Fageol.....300.....	3250	178	196	6250	B 9.00x20	DB9.00x20	Wau MK	6-4 1/2x4 1/2	381.0	40.8	82-2200	L	G	C	C	2 3/4	12 1/2	7	FP	No	Str	V	A-L	A-L	27	
28	Federal T10B 2 1/2-3 T	2740	165	201	6550	P 34x7	DP34x7	Con 16R	6-4 1/2x4 1/2	311	38.4	75-2200	H	C	C	C	2 3/4	13 1/2	7	FP	Ha	Ste	M	A-L	A-L	28	
29	Federal T10W 2 1/2-3 T	2915	165	201	6550	P 34x7	DP34x7	Con 16R	6-4 1/2x4 1/2	311	38.4	75-2200	H	C	C	C	2 3/4	13 1/2	7	FP	Ha	Ste	M	A-L	A-L	29	
30	Fisher-Std.....30A.....	160	160	16800	5600	P 34x7	DP34x7	Con 11R	6-3 1/2x4 1/2	291.9	35.0	64-2500	H	C	C	C	2 3/4	12 1/2	7	FP	Ha	Ste	M	A-L	A-L	30	
31	Fisher-Std.....31A.....	160	160	16800	5600	P 34x7	DP34x7	Con 11R	6-3 1/2x4 1/2	291.9	35.0	64-2500	H	C	C	C	2 3/4	12 1/2	7	FP	Ha	Ste	M	A-L	A-L	31	
32	F.W.D.....B4200.....	4200	134	156	6460	S 36x6	S 36x6	Own	6-4 1/2x5 1/2	398.0	36.1	86-1350	T	G	C	C	2 3/4	12 1/2	7	FP	Pe	Str	G	A-L	A-L	32	
33	Garford.....60.....	4680	175	192	7100	P 36x8	DP36x8	Bud BA6	6-4 1/2x5 1/2	410.9	40.8	83-2100	L	G	C	C	2 3/4	9 1/2	4	FP	Ha	Ste	M	A-L	A-L	33	
34	(X) Gen. Mot.....T-26.....	1450	130	164	4025	B 7.00/20	DB7.00/20	Own 257	6-3 1/2x4 1/2	257.5	28.3	76-2500	H	G	C	C	2 3/4	8 1/2	4	FP	Ha	Mar	M	A-L	A-L	34	
35	(X) Gen. Mot.....T30.....	1750	141	164	4705	P 32x6	DP32x6	Buick	6-3 1/2x4 1/2	257.5	28.3	76-2500	H	G	C	C	2 3/4	8 1/2	4	FP	Ha	Mar	M	A-L	A-L	35	
36	(X) Gen. Mot.....T-31.....	1850	141	181	4635	P 32x6	DP34x7	Own 257	6-3 1/2x4 1/2	257.5	28.3	76-2500	H	G	C	C	2 3/4	8 1/2	4	FP	Ha	Mar	M	A-L	A-L	36	
37	(X) Gen. Mot.....T42.....	1950	141	181	4905	P 36x8	DP36x6	Buick	6-3 1/2x4 1/2	257.5	28.3	76-2500	H	G	C	C	2 3/4	8 1/2	4	FP	Ha	Mar	M	A-L	A-L	37	
38	(X) Gen. Mot.....T44.....	2050	141	181	5008	P 36x6	DP36x6	Buick	6-3 1/2x4 1/2	257.5	28.3	76-2500	H	G	C	C	2 3/4	8 1/2	4	FP	Ha	Mar	M	A-L	A-L	38	
39	(X) Gen. Mot.....T45.....	2095	141	181	5065	B 7.50/20	DB7.50/20	Own 257	6-3 1/2x4 1/2	257.5	28.3	76-2500	H	G	C	C	2 3/4	8 1/2	4	FP	Ha	Mar	M	A-L	A-L	39	
40	(V) Gotfredson RB66C	1900	160	2090	6100	B 9.00/20	DB9.00/20	Bud K381	6-4 1/2x4 1/2	381.0	40.8	95-2800	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Zen	M	A-L	A-L	40	
41	Gotfredson.....RW66.....	1900	160	2090	6100	B 9.00/20	DB9.00/20	Bud K381	6-4 1/2x4 1/2	381.0	40.8	95-2800	L	G	C	C	2 3/4	11 1/2	7	FP	Ha	Zen	M	A-L	A-L	41	
42	Gramm.....E-330.....	160	224	20000	5950	B 8.25/20	DB8.25/20	Lyc TS	6-3 1/2x5 1/2	353.8	36.2	98-2700	L	G	C	C	2 3/4	10	4	FP	No	Str	V	A-L	A-L	42</	

Line Number	Radiator Make	Clutch	Type and Make	Gear Set		Location	No. of Forward Speeds	Aux. Locat. and Speeds	Universal Make and No.	Make and Model	Rear Axle		Front Axle		Brakes		Frame	Body Mounting Data		Springs		Auxiliary Type	Line Number	
				Make and Model	Location						Drive and Type	Final Drive and Type	Service	Area Service Brakes	Hand	Steering Gear Make		Type	Cap to Rear of Frame	Cap to Rear Axle	Width of Frame			Front	Rear
3 Ton —Cont'd																								
1	Chi	D-B-L	B-L 51	U	5	No	Spl 3	Tim 65720H	WF	R 7.75	46.2	Tim 33020H	L4IH	631	TD	Ros	7x4x1/4	C	Opt	Opt	33 1/2	41 1/2x2 1/2	54 1/2x3 1/2	1
2	Per	D-B-L	B-L 55	U	4	No	Blo 4	Tim 65706 HP	WF	R 8.50	45.5	Tim 15302	L4IH	185	TD	Ros	8x3 1/4x3 1/4	C	Opt	Opt	33 1/2	41 1/2x2 1/2	54 1/2x3 1/2	2
3	Per	D-Ful	Ful RU 16	U	8	A2	Blo 5	Wis 65706	WF	H 8.33	159	Wis 15302	W24IM	584	FX	Han	12x2 1/2x1 1/2	C	Opt	Opt	33 1/2	41 1/2x2 1/2	54 1/2x3 1/2	3
4	Own	D-B-L	B-L 51	U	5	No	Blo 3	Tim 65706D	WF	R 9.3	49.7	Tim 15300 H	L4IH	520	TD	Ros	7x3 1/4x1 1/2	C	Opt	Opt	32 1/2	38 1/2x2 1/2	50 3/4x3 1/2	4
5	Per	D-Jon	Cov Rus-4	U	4	No	Blo 3	Tim 58200	BF	H 5.57	35.6	Col 5500	L4IHV	659	FD	Ros	12x2 1/2x1 1/2	C	Opt	Opt	127	74 1/4	34 1/2x2 1/2	56 3/4
6	Per	D-Jon	Cov Rus-4	U	4	No	Blo 3	Tim 58200H	BF	H 4.55	29.1	Eat 423	L4IHV	659	FD	Ros	8 1/2x3 1/4x1 1/2	C	Opt	Opt	156	90	41 1/2x2 1/2	60 3/4
7	Per	P-B-L	B-L 314	U	4	No	Spl 3	Tim 64800H	WF	H Opt	Opt	Tim 33000H	L4IH	578	TX	Ros	7x3 1/4x1 1/2	T	Opt	Opt	134	82	34 1/2x2 1/2	54 3/4
8	Per	P-B-L	B-L 314	U	4	No	Spl 3	Tim 64800H	WF	H Opt	Opt	Tim 33000H	L4IH	578	TX	Ros	7x3 1/4x1 1/2	T	Opt	Opt	134	82	34 1/2x2 1/2	54 3/4
9	Per	P-B-L	B-L 51	U	4	No	Spl 3	Tim 65200H	WF	R 6 1/4	36.1	Tim 33000H	L4IH	659	TD	Ros	9x3 1/4x1 1/2	C	Opt	Opt	132	80	34 1/2x2 1/2	54 3/4
10	G&O	D-Cov	Cov	U	4	No	Spl 3	Tim 58200H	SF	R Opt	Opt	Shu 5582B	L4IHV	408	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	135	81	34 1/2x2 1/2	56 3/4
11	G&O	D-Cov	Cov	U	4	No	Spl 4	Wis 69317B-L	2F	H Opt	Opt	Shu 5582B	L4IHV	408	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	126	80	34 1/2x2 1/2	56 3/4
12	G&O	D-Cov	Cov	U	5	No	Spl 4	Wis 69317B-L	2F	H Opt	Opt	Shu 5582B	L4IHV	408	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	138	87	34 1/2x2 1/2	56 3/4
13	G&O	D-Cov	Cov	U	5	No	Spl 4	Wis 1237H	2F	H Opt	Opt	Shu 5582B	L4IHV	499	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	120	79	34 1/2x2 1/2	56 3/4
14	G&O	D-Cov	Cov	U	5	No	Spl 4	Wis 1237H	2F	H Opt	Opt	Shu 5582B	L4IHV	499	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	138	88	34 1/2x2 1/2	56 3/4
15	G&O	D-Cov	Cov	U	5	No	Spl 4	Wis 1237H	2F	H Opt	Opt	Shu 5582B	L4IHV	499	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	120	79	34 1/2x2 1/2	56 3/4
16	Fed	P	Own	U	4	No	Own 3	Own	S 1/4	H 7.13	46.3	Own	O4IH	382	TX	Han	7x2 1/2x1 1/2	C	Opt	Opt	82 1/2	54 1/4	39 1/2x2 1/2	54 3/4
17	Fed	P	Own	U	4	No	Own 3	Own	S 1/4	H 7.13	46.3	Own	O4IH	382	TX	Han	7x2 1/2x1 1/2	C	Opt	Opt	132 1/2	84 1/4	39 1/2x2 1/2	56 3/4
18	Fed	P	Own	U	4	No	Own 3	Own	S 1/4	H 7.13	46.3	Own	O4IH	382	TX	Han	7x2 1/2x1 1/2	C	Opt	Opt	164 1/4	104 3/4	39 1/2x2 1/2	56 3/4
19	Lon	P	Own	U	4	No	Own 3	Own	SF	H 8.26	56.6	Own	O4IH	416	CD	Jac	10x3 1/4x1 1/2	C	Opt	Opt	99 1/2	65 3/4	42 1/2x2 1/2	56 3/4
20	Lon	P	Own	U	4	No	Own 3	Own	SF	H 7.12	48.8	Own	O4IH	416	CD	Jac	10x3 1/4x1 1/2	C	Opt	Opt	149 1/2	89 3/4	42 1/2x2 1/2	56 3/4
21	Lon	P	Own	U	4	No	Own 3	Own	SF	H 7.12	48.8	Own	O4IH	416	CD	Jac	10x3 1/4x1 1/2	C	Opt	Opt	189 1/2	114 3/4	42 1/2x2 1/2	56 3/4
22	Own	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	168	98	31 1/2x2 1/2	54 3/4
23	Own	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	168	98	31 1/2x2 1/2	54 3/4
24	Own	D-Ful	Ful HOG	U	8	A	Blo 4	Wis 1418	2F	R 8.18	6.7	Shu 615	W2IMV	503	CX	Ros	10x2 1/2x1 1/2	T	Opt	Opt	223	121	31 1/2x2 1/2	54 3/4
25	Mod	D-B-L	B-L 51	U	5	No	Cle	Tim 65706	WF	R 8.5	49.7	Tim 15300 H	L4IHV	408	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	...	2	34 1/2x2 1/2	52 3/4
26	Mod	D-B-L	B-L 55	U	7	No	Cle	Tim 65706	WF	R 8.5	49.7	Tim 15300 H	L4IHV	408	TD	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	...	2	34 1/2x2 1/2	52 3/4
27	Per	P-B-L	B-L 314	U	4	No	Spl 3	Tim 58200H	BF	H 6.83	41.5	Tim 33020H	L4IHV	398	TX	Ros	6 1/2x3 1/4x1 1/2	C	Opt	Opt	167 1/2	97 1/2	34 1/2x2 1/2	56 3/4
28	Lon	P-B&B	Own	U	4	No	P-8 4	Tim 58200H	BF	R 6.75	34.8	Own	L4IH	659	TI	Ros	7 1/2x3 1/4x1 1/2	C	Opt	Opt	119	81	34 1/2x2 1/2	54 3/4
29	Lon	P-B&B	Own	U	4	No	P-8 4	Tim 58200H	BF	R 6.75	34.8	Own	L4IH	659	TI	Ros	7 1/2x3 1/4x1 1/2	C	Opt	Opt	119	81	34 1/2x2 1/2	54 3/4
30	Lon	P-B&B	Own	U	4	No	P-8 4	Tim 58200H	BF	R 6.75	34.8	Own	L4IH	659	TI	Ros	7 1/2x3 1/4x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
31	Lon	P-B&B	Own	U	4	No	P-8 4	Tim 58200H	BF	R 6.75	34.8	Own	L4IH	659	TI	Ros	7 1/2x3 1/4x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
32	McC	O-M-E	Cot DAF	U	3	Opt	Blo 4	Wis 6787-L	FF	R 6.41	42.3	Tim 33000H	L4IH	660	CD	Ros	7 1/2x3 1/4x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
33	Lon	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
34	Lon	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
35	Lon	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
36	Lon	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
37	Lon	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
38	Lon	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
39	Lon	D-Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2x1 1/2	C	Opt	Opt	120	74	34 1/2x2 1/2	54 3/4
40	McC	P-B-L	B-L 51-5	U	5	No	Spl 3	Tim 65720H	WF	R 7.75	46.2	Tim 33020H	L4IH	631	TD	Ros	7x4x1/4	C	Opt	Opt	...	2	34 1/2x2 1/2	52 3/4
41	McC	P-B-L	B-L 51-5	U	5	No	Spl 3	Tim 65720H	WF	R 7.75	46.2	Tim 33020H	L4IH	631	TD	Ros	7x4x1/4	C	Opt	Opt	...	2	34 1/2x2 1/2	52 3/4
42	Per	D-Jon	Cov Rus-4	U	4	No	Blo 3	Tim 58200H	BF	H 5.57	35.6	Col 5500	L4IHV	659	FD	Ros	12x2 1/2x1 1/2	C	Opt	Opt	127	74 1/4	34 1/2x2 1/2	56 3/4
43	Per	D-Jon	Cov Rus-4	U	4	No	Blo 3	Tim 58200H	BF	H 4.55	29.1	Eat 423	L4IHV	659	FD	Ros	8 1/2x3 1/4x1 1/2	C	Opt	Opt	156	90	41 1/2x2 1/2	60 3/4
44	Own	D-Ful	Ful JUV	U	5	No	M.M.6	Tim 56200H	SF	H 7.25	55.0	Tim 3100H	L4IH	...	...	Ros	8 1/2x3 1/4x1 1/2	C	Opt	Opt	156	90	41 1/2x2 1/2	60 3/4
45	Own	D-Ful	Ful JUV	U	5	No	M.M.6	Tim 56200H	SF	H 7.25	55.0	Tim 3100H	L4IH	...	...	Ros</								

Line Number	Make, Model and Capacity	Chassis Price		Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Tire Size		Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make	Fuel System		Electrical System		Line Number
		Chassis Price	Standard W.B.				Max. W.B. Furnished	Front																	Rear	Carburetor Make	Fuel Feed	Ignition System Make	
3½ Ton—Cont'd																													
1	Clinton.....85-6	4400	190	Op	16975	5975	P 34x7	DP34x7	Bud BUS	6-4x5½	386.4	38.4	74-2400	L	G	C	2½	9½	4	FP	No	Str	V	V	D-R	D-R	1		
2	Coleman D-40X 3½-51	5250	130	192	11100	9700	B10.50/24	B10.50/24	Bud BA6	6-4½x5½	411.0	40.8	105-2200	L	G	C	2½	9½	4	FP	No	Str	V	V	D-R	D-R	2		
3	Commer.....80	4500	202	222	19400	7000	P 34x7	DP34x7	Bud BA6	6-4½x5½	411.0	40.8	85-2000	L	G	C	2½	9½	4	FP	No	Str	V	V	D-R	D-R	3		
4	Concord.....JLX-6	4500	202	222	19400	7000	P 34x7	DP34x7	Bud BA6	6-4½x5½	411.0	40.8	85-2000	L	G	C	2½	9½	4	FP	No	Str	V	V	D-R	D-R	4		
5	(Z) Corbitt.....15B6	174	220	17500	5870	P 34x7	DP34x7	Con 16R	6-4x4½	311	38.4	72-2400	H	C	C	2½	11½	7	FP	No	Str	V	V	D-R	D-R	5			
6	(Z) Corbitt.....15W6	183	224	17500	6160	P 34x7	DP34x7	Con 16R	6-4x4½	311	38.4	72-2400	H	C	C	2½	11½	7	FP	No	Str	V	V	D-R	D-R	6			
7	Duplex.....EF	130	17000	6500	S 36x8	S 36x8	Con EBU-I	4-4½x5½	312.0	28.9	57-2100	L	G	C	2½	10½	3	FP	No	Str	V	V	D-R	D-R	7				
8	Federal.....U6-3-3½T	3860	165	218	20000	7220	P 34x7	DP34x7	Con 18R	6-4x4½	339.0	38.4	85-2200	H	C	C	2½	11½	7	FP	No	Str	V	V	D-R	D-R	8		
9	Fisher-Std.....61-A	5120	155	16800	5600	P 34x7	DP34x7	Con 16R	6-4x4½	311	38.4	73-2400	H	C	C	2½	13½	7	FP	No	Str	V	V	D-R	D-R	9			
10	F.W.D.....CU-6	5120	148	180	17500	7500	P 38x9	P 38x9	Wau SRS	6-4½x5½	411.0	40.8	91-2300	L	G	C	3	13½	7	FP	No	Str	V	V	D-R	D-R	10		
11	Garford.....80	5250	175	192	18000	8200	S 36x6	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	2½	9½	4	PC	Ha	Mar	M	A-L	A-L	11			
12	(X) Gen. Mot. T-31	1845	141	181	14000	4695	P 32x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	PC	Ha	Mar	M	A-L	A-L	12			
13	(X) Gen. Mot. T-42	1960	141	181	15000	4905	P 36x6	DP36x6	Bulck	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	PC	Ha	Mar	M	A-L	A-L	13			
14	(X) Gen. Mot. T-44	2050	141	181	16000	5005	P 36x6	DP36x6	Bulck	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	PC	Ha	Mar	M	A-L	A-L	14			
15	(X) Gen. Mot. T-45	1990	141	181	16000	5050	P 32x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	PC	Ha	Mar	M	A-L	A-L	15			
16	Gottfredson.....RW 76A	21900	7500	B9.75/20	DB9.75/20	Bud K428	6-4½x5½	428.0	45.9	100-2400	L	G	C	3	11½	7	FP	No	Str	V	V	D-R	D-R	16		
17	Gottfredson.....RD 76A	21900	7500	B9.75/20	DB9.75/20	Bud K428	6-4½x5½	428.0	45.9	100-2400	L	G	C	3	11½	7	FP	No	Str	V	V	D-R	D-R	17		
18	G-P 6-56, 3½-5	3325	158	195	15000	7100	B9.00/20	DB9.00/20	Lyc TS	6-3½x4½	353.0	36.5	97-2750	L	G	C	2½	10	4	PC	Mo	Str	M	A-L	A-L	18			
19	G-P 65-8, 3½-5	3485	158	195	15000	7200	B9.00/20	DB9.00/20	Lyc AEC	6-3½x4½	420.0	45.0	140-3000	L	G	C	2½	11½	5	PC	Mo	Str	M	A-L	A-L	19			
20	(V) Hug.....C87, 87M	.....	.....	.....	21800	.....	P 36x8	DP36x8	Bud DW6	6-4½x5½	330.0	33.7	70-2100	L	G	C	2½	9	4	PC	Mo	Str	M	A-L	A-L	20
21	Hug.....43-3½-4T	160	205	B9.75/20	DB9.75/20	Bud K428	6-4½x5½	428.0	45.9	102-2400	L	G	C	3	11½	7	FP	No	Str	V	V	D-R	D-R	21		
22	Indiana.....3-4T	195	170	224	19500	7500	P 36x8	DP36x8	Con	6-4½x5½	380.0	40.8	89-2400	H	C	C	2½	13½	7	FP	No	Str	V	V	D-R	D-R	22		
23	International.....W2	3900	148	200	8400	S 36x5	S36x10	Has 151	4-4½x5½	312	28.9	59-1800	H	C	C	2½	8½	3	FP	HS	Str	U	R	D-R	D-R	23			
24	Kleiber.....210	190	192	21000	7100	B9.00/20	DB9.00/20	Con 20R	6-4½x5½	380.0	40.8	89-2400	H	C	C	2½	13½	7	FP	No	Str	V	V	D-R	D-R	24			
25	Larrabee.....65	4280	166	204	7200	B 8.25/20	DB8.25/20	Con 18R	6-4x4½	339.0	38.4	82-2400	H	C	C	2½	13½	7	FP	No	Str	V	V	D-R	D-R	25			
26	Moreland 2½T B13.15	2850	184	15000	6315	B 8.25/20	DB8.25/20	Her WXC	6-4x4½	339.0	38.4	75-2400	L	G	C	2½	13½	7	FP	No	Str	V	V	D-R	D-R	26			
27	Netco.....E	4500	140	200	18500	7500	B9.75/20	B 9.75/20	Wau GSRL	6-4½x5½	462.0	45.9	100-2400	L	G	C	3	13½	7	FP	No	Str	V	V	D-R	D-R	27		
28	Oshkosh.....35	150	150	21000	7600	P 36x8	DP36x8	Her WXC	6-4x4½	339.0	38.4	73-2000	L	G	C	2½	13½	7	FP	No	Str	V	V	D-R	D-R	28			
29	Oshkosh.....HC	5350	166	165	18500	8000	B 10.50/20	B 10.50/20	Her YXC	6-4x4½	428.0	45.9	90-2000	L	G	C	3	15	7	FP	No	Str	V	V	D-R	D-R	29		
30	Relay.....60DC	4745	175	192	7800	P 38x7	DP40x7	Bud BA6	6-4½x5½	410.0	40.8	83-2100	L	G	C	2½	9½	4	PC	Ha	Mar	M	A-L	A-L	30				
31	Relay.....80	5330	175	192	8600	P 36x6	S 40x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	2½	9½	4	PC	Ha	Mar	M	A-L	A-L	31				
32	Schacht.....28H, 3½-5	50	52	175	8200	S 36x6	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	2½	9½	4	PC	Ha	Mar	M	A-L	A-L	32				
33	Service.....80	52	175	192	8200	S 36x6	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	2½	9½	4	PC	Ha	Mar	M	A-L	A-L	33				
34	Sterling, FW97, FD97	4225	192	222	7955	P 36x8	DP36x8	Wau MK	6-4½x5½	381.0	40.8	85-2500	L	G	C	2½	12½	7	FP	No	Str	V	V	D-R	D-R	34			
35	Sterling FW97S, FD97S	4490	192	222	8200	P 36x8	DP36x8	Wau SRL	6-4½x5½	462.0	45.9	102-2400	L	G	C	3	13½	7	FP	No	Str	V	V	D-R	D-R	35			
36	Sterling.....FC100	192	222	.....	7550	P 36x8	DP36x8	Wau MK	6-4½x5½	381.0	40.8	85-2500	L	G	C	2½	12½	7	FP	No	Str	V	V	D-R	D-R	36		
37	Stewart.....19X	3690	165	235	7110	S 36x5	S 36x10	Lyc TS	6-3½x4½	354.0	36.2	90-2750	L	G	C	2½	10½	4	FP	Ha	Str	V	V	D-R	D-R	37			
38	Stewart.....38-6	3990	170	241	7600	B9.00/20	DB9.00/20	Wau GSRL	6-4½x5½	462.0	45.9	100-2000	L	G	C	3	12½	7	FP	Ha	Str	V	V	D-R	D-R	38			
39	Stewart.....38-8	3990	170	241	7600	B9.00/20	DB9.00/20	Lyc AE	6-3½x4½	420.0	44.4	130-2400	L	G	C	3	12½	7	FP	No	Str	V	V	D-R	D-R	39			
40	Studebaker.....FM	5375	84	17000	5400	B 7.50/20	DB 7.50/20	Own	6-3½x4½	337.0	39.2	115-3200	L	G	C	3	9½	5	PC	No	Str	V	V	D-R	D-R	40			
41	Walter.....55	4050	174	215	8737	P 36x5	DS40x5	Own GRB	6-4½x5½	326.3	32.9	54-1600	L	G	C	2½	11½	3	FP	On	Str	V	V	D-R	D-R	41			
42	Ward LaFrance 30B18	197	209	18000	7500	B 9.00/20	DB9.00/20	Own	6-3½x4½	322	36.4	100-2400	L	G	C	2½	10½	4	FP	Ha	Str	P	D-R	D-R	42				
43	Ward LaFrance 30R18	197	209	18000	7500	B 9.00/20	DB9.00/20	Own	6-3½x4½	322	36.4	100-2400	L	G	C	2½	10½	4	FP	Ha	Str	P	D-R	D-R	43				
44	Ward-La France30B21	197	209	18000	7500	B 9.00/22	DB9.00/22	Own	6-3½x4½	322	36.4	100-2400	L	G	C	2½	10½	4	FP	Ha	Str	P	D-R	D-R	44				
45	White.....55	4050	174	215	8737	P 36x5	DS40x5	Own GRB	6-4½x5½	326																			

Line Number	Clutch	Gear Set		Universal Make and No.	Rear Axle			Front Axle		Brakes		Frame		Body Mounting Data		Springs		Line Number						
		Make and Model	Location		Make and Model	Final Drive and Type	Gear Ratios	Make and Model	Make and Model	Service	Area Service Brakes	Steering Gear Make	Dim. Side Rail	Type	Cap to Rear of Frame	Cap to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type				
1	Per	B-L	B-L 55	A	4	No	Blo 4	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	1
2	R-T	D-Ful	B-L 55	A	4	No	Blo 4	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	2
3	Lon	P-B-L	B-L 55	A	4	No	Blo 4	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	3
4	Own	P-B-L	B-L 55	A	4	No	Blo 4	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	4
5	Per	P-B-L	B-L 314	A	4	No	Spl 3	Tim 58200	BF	H 6.1	32.6	Tim 15300H	L4IH	660 TX	Ros	7x3 1/4 x 1/4	C	144	88	33 1/4	40x2 1/2	54x3	N	5
6	Per	P-B-L	B-L 314	A	4	No	Spl 3	Tim 58200	BF	H 6.1	32.6	Tim 15300H	L4IH	660 TX	Ros	7x3 1/4 x 1/4	C	144	88	33 1/4	40x2 1/2	54x3	N	6
7	Lon	P-B-L	B-L 60	A	4	No	Spl 3	Tim 58200H	WF	R 6.8	32.6	Tim 15300H	L4IH	660 TX	Ros	7x3 1/4 x 1/4	C	144	88	33 1/4	40x2 1/2	54x3	N	7
8	Lon	P-B-L	B-L 60	A	4	No	Spl 3	Tim 58200H	WF	R 6.8	32.6	Tim 15300H	L4IH	660 TX	Ros	7x3 1/4 x 1/4	C	144	88	33 1/4	40x2 1/2	54x3	N	8
9	Lon	P-B-L	B-L 51	A	4	No	Spl 3	Tim 58200H	WF	R 6.8	32.6	Tim 15300H	L4IH	660 TX	Ros	7x3 1/4 x 1/4	C	144	88	33 1/4	40x2 1/2	54x3	N	9
10	Per	O-H-S	B-L 55-7	A	4	No	Spl 4	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	10
11	Lon	P-B-L	B-L 60 Max	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	11
12	Lon	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	12
13	Lon	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	13
14	Lon	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	14
15	Lon	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	15
16	McC	D-B-L	B-L 55-7	A	4	No	Spl 3	Tim 65720H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	16
17	McC	D-B-L	B-L 55-7	A	4	No	Spl 3	Tim 65720H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	17
18	Own	D-Ful	Ful VUOG	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	18
19	Own	D-Ful	Ful VUOG	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	19
20	You	D-B-L	B-L 55-7	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	20
21	You	D-B-L	B-L 55-7	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	21
22	G&O	D-B-L	B-L 51-5	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	22
23	Own	P-Own	Own	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	23
24	Own	D-B-L	B-L 55	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	24
25	Per	D-B-L	B-L 55	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	25
26	Lon	P-B-L	B-L 314	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	26
27	Mod	D-B-L	B-L 55	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	27
28	You	D-Ful	Ful MGOG	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	28
29	Mod	D-B-L	B-L 60	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	29
30	Lon	Ful	Ful VU	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	30
31	Lon	P-B-L	Cov SHO	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	31
32	Lon	P-B-L	Ful MLU	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	32
33	Mod	P-B-L	B-L 60 Max	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	33
34	Mod	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	34
35	Mod	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	35
36	Mod	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	36
37	Fed	D-Ful	Ful	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	37
38	Fed	D-Ful	Ful	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	38
39	Fed	D-Ful	Ful	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	39
40	Lon	D-Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	40
41	Own	Own	Own	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	41
42	Mod	P-B-L	B-L	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	42
43	Mod	P-B-L	B-L	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	43
44	Mod	P-B-L	B-L	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	44
45	Mod	P-B-L	B-L	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	45
46	Own	P-Own	Own 4B	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	46
47	Own	P-Own	Own 4B	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	47
48	Own	P-Own	Own 4B	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	48
49	You	D-Ful	Ful MHOG	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	49
50	Per	D-B-L	B-L 51	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	50
51	Per	D-B-L	B-L 51	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	51
52	Chl	D-B-L	B-L 51	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	52
53	Chl	D-B-L	B-L 55	A	4	No	Spl 3	Tim 58200H	WF	R 7.75	73.6	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	144	88	33 1/4	43 1/2 x 3	51 1/2 x 3	N	53
54	Per	B-L	B-L 60-4	A	4	No	Spl 3	Tim 65720H	WF	R 7.75	41.5	Tim 35000	L4IH	660 TX	Ros	7x3 1/4 x 1/4	C	168	105 1/2	34	40x2 1/2	54x3	N	54
55	Own	D-Ful	Ful MG U	A	4	No	Spl 3	Tim 58000	WF	R 7.75	38.8	Tim 15302	T2IH	RI	Ros	8x3 1/4 x 1/4	C	168	105 1/2	34	40x2 1/2	54x3	N	55
56	You	D-B-L	B-L	A	4	No	Spl 3	Tim 65706 HP	WF	R 7.75	38.													

Line Number	Make, Model and Capacity	General			Tire Size		Engine														Fuel System		Electrical System		Line Number	
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make		
4 Ton—Cont'd																										
1	Woods.....75	4960	190	Op	.....	7200	B 9.75/20	DB9.75/20	Her YXC 3	6-4 1/2 x 4 1/2	479	51.2	104-2200	L	C	C	3	15	7 PC	Ha	Str	M	R-Bo	A-L	1
2	World.....DA-115	3595	168	182	17500	6100	P 36x8	DP36x8	Lye HD	8-3 1/2 x 4 1/2	298.6	33.8	115-3300	L	C	C	2 1/2	10	5 PC	Ha	Zen	M	A-L	A-L	2	
4 1/2 Ton																										
3	Gottf'dson RD,RW96A	5500	168	206	24000	8500	B9.75/20	DB9.75/20	Buda K479	6-4 1/2 x 4 1/2	479.0	51.2	100-2000	L	C	C	3	11 1/2	7 FP	Ha	Zen	M	D-R	D-R	3	
4	Larrabee 85.....	3025	184	.....	18000	6695	B 9.00/20	DB9.00/20	Her WXC	6-4 1/2 x 4 1/2	339.0	38.4	97-2400	L	C	C	3	13 1/2	7 FP	Ha	Zen	M	D-R	D-R	4
5	Moreland.....4T,B16,18	3300	184	.....	18000	6695	B 9.00/20	DB9.00/20	Her WXC	6-4 1/2 x 4 1/2	339.0	38.4	97-2400	L	C	C	3	13 1/2	7 FP	Ha	Zen	M	D-R	D-R	5
6	Moreland.....4T,E16,18	3300	184	.....	18000	6695	B 9.00/20	DB9.00/20	Her WXC	6-4 1/2 x 4 1/2	339.0	38.4	97-2400	L	C	C	3	13 1/2	7 FP	Ha	Zen	M	D-R	D-R	6
7	Schacht.....30HA, 5 1/2	146	227	.....	146	227	.....	.....	Her WXC	6-4 1/2 x 4 1/2	339.0	38.4	97-2400	L	C	C	3	13 1/2	7 FP	Ha	Zen	M	D-R	D-R	7
8	Schacht.....30HA, 5 1/2	146	227	.....	146	227	.....	.....	Her WXC	6-4 1/2 x 4 1/2	339.0	38.4	97-2400	L	C	C	3	13 1/2	7 FP	Ha	Zen	M	D-R	D-R	8
9	Ward La France .45D	146	227	.....	146	227	.....	.....	Wau SRL	6-4 1/2 x 5 1/2	462	45.9	97-2000	L	C	C	3	13 1/2	7 FP	Mo	Zen	M	D-R	D-R	9
5 Ton																										
10	Acme.....10X Spec	192	Op	.....	23500	9400	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 4 1/2	428.4	45.9	100-2200	H	C	C	2 1/2	13 1/2	7 PC	Ha	Str	M	A-L	A-L	10
11	Acme.....10X	192	Op	.....	23500	9400	B10.50/20	DB10.50/20	Con 15H	6-4 1/2 x 4 1/2	428.4	45.9	100-2200	H	C	C	2 1/2	13 1/2	7 PC	Ha	Str	M	A-L	A-L	11
12	Am. LaF. Big. Ch.16	6725	226	242	24000	10000	P 40x8	DP40x8	Her WXC2	6-4 1/2 x 4 1/2	360.0	40.8	80-2200	L	C	C	2 1/2	13 1/2	7 PC	Ha	Zen	M	A-L	A-L	12	
13	Armleder.....61	199	199	19420	6700	P 36x8	DP36x8	Her WXC2	6-4 1/2 x 4 1/2	360.0	40.8	80-2200	L	C	C	2 1/2	13 1/2	7 PC	Ha	Zen	M	A-L	A-L	13		
14	Autocarb.....100	223	237	28000	9100	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 4 1/2	428.4	45.9	101-2400	L	C	C	3	14 1/2	7 FP	Pe	Str	V	D-R	L-N	14		
15	Autocarb.....TFA	6100	192	242	28000	9430	P 38x9	DP38x9	Own	6-4 1/2 x 4 1/2	453.0	48.6	101-2400	L	C	C	3	14 1/2	7 FP	Pe	Str	V	D-R	L-N	15	
16	Available.....T-50	Op	Op	.....	22000	9300	B 9.75/20	DB9.75/20	Wau 6RB	6-5 1/2 x 4 1/2	677.4	60.0	125-1900	L	C	C	3 1/2	11 1/2	4 CC	Wa	Str	M	D-R	D-R	16
17	Brockway.....4-5T-220	170	224	.....	22000	8400	P 40x8	DP40x8	Con	6-4 1/2 x 4 1/2	427.5	45.9	100-2400	L	C	C	2 1/2	13 1/2	7 PC	Ha	Str	M	A-L	A-L	17
18	Clinton.....120L	5500	204	Op	27050	9550	S 36x6	DS40x7	Bud BTU	4-5 1/2 x 6 1/2	510.5	40.0	61-1400	L	C	C	2 1/2	12 1/2	3 PC	Bu	Zen	V	Spl	A-Bo	18	
19	Clinton.....120LM	204	Op	27150	9550	S 36x6	DS40x7	Bud BTU	4-5 1/2 x 6 1/2	510.5	40.0	61-1400	L	C	C	2 1/2	12 1/2	3 PC	Bu	Zen	V	Spl	A-Bo	19		
20	Coleman X-100 5-6 T	144	184	24300	11200	P 42x9	P 42x9	Bud BA6	6-4 1/2 x 5 1/2	411.0	40.8	105-2200	L	C	C	2 1/2	9 1/2	4 FP	Bu	Zen	V	D-R	D-R	20		
21	Coleman X-100F 5-7 1/2	144	184	24300	11200	P 42x9	P 42x9	Bud BA6	6-4 1/2 x 5 1/2	411.0	40.8	105-2200	L	C	C	2 1/2	9 1/2	4 FP	Bu	Zen	V	D-R	D-R	21		
22	Commerce.....100	58.10	175	192	24000	9600	S 36x6	S 40x14	Bud BA6	6-4 1/2 x 5 1/2	411.0	40.8	83-2100	L	C	C	2 1/2	9 1/2	4 PC	Bu	Zen	V	D-R	D-R	22	
23	Condor.....CHB	120	236	24000	10100	B 9.00/20	DB9.00/20	Con 16H	6-4 1/2 x 5 1/2	611.4	54.1	127-2300	H	C	C	2 1/2	13 1/2	7 PC	Pe	No	Zen	M	A-L	A-L	23
24	Condor.....CGW	120	236	24000	10100	B 9.00/20	DB9.00/20	Con 21R	6-4 1/2 x 5 1/2	611.4	54.1	127-2300	H	C	C	2 1/2	13 1/2	7 PC	Pe	No	Zen	M	A-L	A-L	24
25	(Z) Corbitt.....24	195	30	24800	9200	P 38x9	DP38x9	Con 20R	6-4 1/2 x 4 1/2	381.0	40.8	90-2200	H	C	C	2 1/2	13 1/2	7 FP	Co	Zen	V	D-R	D-R	25		
26	Day Elder.....240	4295	162	202	24000	9500	P 38x9	DP38x9	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	100-2600	H	C	C	2 1/2	13 1/2	7 FP	Co	Zen	V	D-R	D-R	26	
27	Diamond T.....750	4650	178	238	24000	9000	B 9.75/22	DB9.75/22	Her RXC	6-4 1/2 x 4 1/2	529.0	51.3	124-2200	L	C	C	2 1/2	12 1/2	7 PC	Ha	Zen	M	A-L	A-L	27	
28	Douglas.....F4	5500	185	Op	26000	9200	S 36x6	S 40x12	Bud BBU	4-5 1/2 x 6 1/2	510.5	40.0	61-1400	L	C	C	2 1/2	12 1/2	3 PC	Bu	Zen	V	D-R	D-R	28	
29	Douglas.....F6	6300	186	Op	26000	9200	B 9.75/38	DB9.75/38	Bud GL6	6-4 1/2 x 6 1/2	572.5	48.6	114-1900	L	C	C	3	10 1/2	4 PC	Bu	Zen	V	D-R	D-R	29	
30	Duplex.....M 5-7 Ton	7600	Op	.....	28000	10000	P 34x7	DS36x7	Bud GL6	6-4 1/2 x 6 1/2	572.5	48.6	105-2200	L	C	C	3	10 1/2	4 PC	Bu	Zen	V	D-R	D-R	30
31	Federal AC6A 4-5 T	4735	192	231	24000	8330	P 36x8	DP36x8	Con 20R	6-4 1/2 x 4 1/2	381.0	40.8	90-2200	H	C	C	2 1/2	13 1/2	7 PC	Co	Zen	M	D-R	D-R	31	
32	Federal AC6AB 4-5 T	4960	192	231	24000	8850	P 36x8	DP36x8	Con 20R	6-4 1/2 x 4 1/2	381.0	40.8	90-2200	H	C	C	2 1/2	13 1/2	7 PC	Co	Zen	M	D-R	D-R	32	
33	Fisher-Std.....100A	168	.....	21600	8300	P 36x8	DP36x8	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	102-2400	H	C	C	2 1/2	13 1/2	7 FP	Ha	Zen	V	D-R	D-R	33	
34	Fisher-Standard.....105A	168	.....	21600	8400	P 38x9	DP38x9	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	102-2400	H	C	C	2 1/2	13 1/2	7 FP	Ha	Zen	V	D-R	D-R	34	
35	F.W.D.....M5	7600	165	195	24800	11800	B12.75/20	B 12.75/20	Wau SRL	6-4 1/2 x 5 1/2	462.0	45.9	102-2400	H	C	C	2 1/2	13 1/2	7 PC	Wa	Zen	M	N-E	N-E	35	
36	Garford.....100	5830	175	192	19000	9600	S 36x6	S 40x14</																		

Line Number	Radiator Make	Type and Make	Clutch	Gear Set		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Line Number								
				Make and Model	Location		No. of Forward Speeds	Aux. Locat. and Speeds	Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame		Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type			
4 Ton Cont'd																											
1	Chl	D.B-L	B-L 615	U	5	No	Blo 5	Tim 75720H	2F	R	Opt	50.7	Tim 35000H	L4IH	768	FD	Ros	7x3 1/2 x 1/2	P	Opt	Opt	34	41 1/2 x 2 1/2	53x3	1/2	1	
2	Mod	D.P.Lon	Ful MGU	U	4	No	Spl 3	Tim 58200H	SF	R	7.8	Opt	50.7	Tim 35000H	L4IHV	660	TD	Ros	8x3 1/2 x 1/2	T	Opt	Opt	33 1/2	41 1/2 x 2 1/2	53x3	1/2	2
4 1/2 Ton																											
3	McC	D.B-L	B-L 60-7	A	7	No	Spl	Tim 66720dh	W/2	R	9.5	90.2	Tim 26450H	L4IH	768	FD	Ros	8x3 1/2 x 1/2	C	Opt	Opt	32 1/2	40x2 1/2	54x4	1/2	3	
4	Per	D.B-L	B-L 55	A	7	No	Spl	Tim 66720DH	W/2	R	9.5	90.2	Tim 26450H	L4IH	768	FD	Ros	8x3 1/2 x 1/2	C	Opt	Opt	32 1/2	40x2 1/2	54x4	1/2	4	
5	Lon	P.B-L	B-L 314	U	4	No	Spl	Tim 58200H	SF	R	13	32.9	Tim 33020H	L4IH	659	TD	Ros	9 1/2 x 3 1/2 x 1/2	C	Opt	Opt	34	41 1/2 x 2 1/2	54x3	1/2	5	
6	Lon	P.B-L	B-L 51-4	U	4	No	Spl	Tim 58200H	SF	R	13	32.9	Tim 33020H	L4IH	659	TD	Ros	9 1/2 x 3 1/2 x 1/2	C	Opt	Opt	34	41 1/2 x 2 1/2	54x3	1/2	6	
7	You	D.Ful	Ful MGU	U	4	No	Spl	Wis 8837AL	2F	R	7.14	46.4	Tim 33020H	L4IHV	658	TX	Ros	7x3 1/2 x 1/2	P	Opt	Opt	31 1/2	40x2 1/2	50x3	1/2	7	
8	You	D.Ful	Ful MGU	U	4	No	Spl	Own	2F	R	8.00	52.0	Shu 5572	L4IHV	893	TD	Ros	8 1/2 x 3 1/2 x 1/2	P	Opt	Opt	31 1/2	40x2 1/2	50x3	1/2	8	
9	Own	P.B-L	B-L 615	A	7	Opt	Spl	Tim	WF	R	Opt	Opt	Opt	Shu 615	T2IMV	...	TX	Ros	7x3 1/2 x 1/2	C	Opt	Opt	33	40x2 1/2	56x3 1/2	1/2	9
5 Ton																											
10	Per	B-L	B-L 60-7	A	7	No	Spl	Tim 66720DH	WF	R	9.0	85.5	Tim 26050H	L4ID	876	TD	Ros	9x3 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	10	
11	Per	B-L	B-L 60-7	A	7	No	Spl	Tim 66720H	WF	R	9.0	85.5	Tim 26050H	L4ID	921	TD	Ros	9x3 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	11	
12	Own	P.B-L	Own	A	7	No	Own	Own 16R	2F	R	6.13	33.0	Own 16R	O4IA	793	C	Own	9 1/2 x 2 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	12	
13	Own	D.Ful	Ful MGU	U	4	No	Own	Tim 65706H	WF	R	8.5	55.2	Shu 5572	L4IHV	793	C	Own	8x3 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	13	
14	Per	D.B-L	B-L 55-7	A	7	No	Spl	Tim 66720DH	W/2	R	9.0	85.5	Tim 26450H	L4IH	864	...	Ros	9x3 1/2 x 1/2	C	128	133	34	40x3	56x4	1/2	14	
15	Own	dp.Lon	Own	A	7	Opt	Spl	Own C	2F	R	7.57	5.3	Own L	O2IMF	502	TD	Ros	9x3 1/2 x 1/2	C	128	133	34	40x3	56x4	1/2	15	
16	Own	dp.Lon	Own	A	7	Opt	Spl	Own TF	2F	R	7.57	5.3	Own L	O2IMF	502	TD	Ros	9x3 1/2 x 1/2	C	128	133	34	40x3	56x4	1/2	16	
17	You	D.B-L	B-L 70	U	4	No	Blo	Tim 66720W	WF	R	9.1	90.0	Tim 26450W	W41A	880	TD	Ros	7x2 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	17	
18	G&O	D.B-L	B-L	U	4	No	Blo	Wis	2F	R	6.96	50.7	Shu	L4IHV	546	CD	Ros	8 1/2 x 3 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	18	
19	Own	D.B-L	B-L 60	A	7	No	Blo	T' 68702DHP	WF	R	8.80	47.1	Tim 17300	T2IH	288	RI	Ros	10x3 1/2 x 1/2	T	168	108 1/4	34	44x3	54x3 1/2	1/2	19	
20	Own	D.B-L	B-L 60Max	A	7	No	Blo	T' 68702DHP	WF	R	8.80	47.1	Tim 17300	T2IH	288	RI	Ros	10x3 1/2 x 1/2	T	168	108 1/4	34	44x3	54x3 1/2	1/2	20	
21	R-T	D.Ful	Ful R 16	U	4	No	Blo	Wis 122	2F	R	8.54	40.0	Wis 122F	W2/4IM	...	...	Ros	14x2 1/2 x 1 1/2	C	168	108 1/4	34	44x3	54x3 1/2	1/2	21
22	Per	D.Ful	Ful HU 16	U	4	No	Blo	Wis 122	2F	R	8.54	40.0	Wis 122F	W2/4IM	...	...	Ros	14x2 1/2 x 1 1/2	C	168	108 1/4	34	44x3	54x3 1/2	1/2	22
23	Lon	D.Own	B-L 60Max	U	7	No	Blo	Tim 68700DP	WF	R	10.1	95.0	Tim 16302	L4IH	568	FX	Ros	14x2 1/2 x 1 1/2	C	144	94 1/2	34	48x3 1/2	52x4	1/2	23	
24	Per	D.Ful	Ful HU 16	U	4	No	Blo	WT 12527KW	2F	R	11.4	20.5	Tim 1660	41A	...	FD	Ros	8 1/2 x 3 1/2 x 1/2	C	128	133	34	40x3	56x4	1/2	24	
25	Per	D.Jon	Cov Rus	U	4	No	Blo	Wis 1627K	2F	R	11.6	3.4	Tim 27450	41A	864	FD	Ros	7 1/2 x 3 1/2 x 1/2	C	128	133	34	40x3	56x4	1/2	25	
26	Per	D.B-L	B-L 60	A	7	No	Spl	Tim 66704DH	W/2	R	11.0	95.0	Tim 26450H	T4IHV	695	2I	Ros	8x2 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	26	
27	Per	D.B-L	B-L 60	A	7	No	Spl	Tim 66720H	WF	R	9.0	50.8	Tim 36020H	L4IHV	520	TD	Ros	10x3 1/2 x 1/2	P	168	108 1/4	34	44x3	54x3 1/2	1/2	27	
28	G&O	D.B-L	B-L 60	A	7	No	Spl	Wis 1627KW	2F	R	11.0	95.0	Tim 27														

Line Number	Make, Model and Capacity	General			Tire Size		Engine														Fuel System		Electrical System		Line Number		
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make		Generator, Starter Make	
5 1/2 Ton and More—Cont'd																											
1	Indiana... 7 1/2-10T 290	182	212	30000	10750	P 38x7	S 40x14	Con	6-4 1/2 x 5 1/2	611.4	54.2	116-1800	L	C	C	C	3 3/4	13 1/2	7	FP	Pe	Str	E	L-N	L-N	1	
2	La Fran.-Republic 35-2	174	198	24000	9250	P 38x9	DP38x9	Wau 6AB	6-4 1/2 x 5 1/2	549.0	48.6	98-1850	L	C	C	C	3 3/4	11 1/2	7	FP	Pe	Str	E	L-N	L-N	2	
3	La Fran.-Republic 35-2	174	198	24000	9250	P 38x9	DP38x9	Wau 6AB	6-4 1/2 x 5 1/2	549.0	48.6	98-1850	L	C	C	C	3 3/4	11 1/2	7	FP	Pe	Str	E	L-N	L-N	3	
4	Mack AC...	5500	156	240	156	S 36x6	DB10.50/24	Own AC	6-4 1/2 x 5 1/2	471.2	40.0	77-1800	L	C	C	C	3 3/4	10 1/2	4	PC	On	Str	V	R-Bo	R-Bo	4	
5	Mack AC...	5500	156	240	156	S 36x6	DB10.50/24	Own BK	6-4 1/2 x 5 1/2	525.5	48.6	126-2200	L	C	C	C	3 3/4	10 1/2	4	PC	On	Str	V	R-Bo	R-Bo	5	
6	Mack AC...	6000	156	240	156	S 36x7	DB10.50/24	Own AC	6-4 1/2 x 5 1/2	471.2	40.0	77-1800	L	C	C	C	3 3/4	10 1/2	4	PC	On	Str	V	R-Bo	R-Bo	6	
7	Mack AC...	6000	156	240	156	S 36x7	DB10.50/24	Own AC	6-4 1/2 x 5 1/2	471.2	40.0	77-1800	L	C	C	C	3 3/4	10 1/2	4	PC	On	Str	V	R-Bo	R-Bo	7	
8	Moreland... 7 1/2-10T 290	182	212	30000	10750	P 38x7	S 40x14	Con	6-4 1/2 x 5 1/2	611.4	54.2	116-1800	L	C	C	C	3 3/4	13 1/2	7	FP	Pe	Str	E	L-N	L-N	8	
9	Netco... 7 1/2-10T 290	182	212	30000	10750	P 38x7	S 40x14	Con	6-4 1/2 x 5 1/2	611.4	54.2	116-1800	L	C	C	C	3 3/4	13 1/2	7	FP	Pe	Str	E	L-N	L-N	9	
10	Pierce-Arrow... 7 1/2-10T 290	182	212	30000	10750	P 38x7	S 40x14	Con	6-4 1/2 x 5 1/2	611.4	54.2	116-1800	L	C	C	C	3 3/4	13 1/2	7	FP	Pe	Str	E	L-N	L-N	10	
11	Relay... 100B, 7 1/2 Ton	6900	220	29200	11200	B 9.75/24	DB9.75/24	Buda GF6	6-4 1/2 x 5 1/2	638.5	54.1	118-1850	L	C	C	C	3 3/4	10 1/2	7	FP	Mo	Zen	E	G-A	L-A	11	
12	Schacht... 40HA	154	235	154	235	S 36x6	DB10.50/24	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	93-2200	L	C	C	C	3 3/4	11 1/2	7	FP	Mo	Zen	E	G-A	L-A	12	
13	Schacht... 40HB	154	235	154	235	S 36x6	DB10.50/24	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	93-2200	L	C	C	C	3 3/4	11 1/2	7	FP	Mo	Zen	E	G-A	L-A	13	
14	Schacht... 40HB	154	235	154	235	S 36x6	DB10.50/24	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	93-2200	L	C	C	C	3 3/4	11 1/2	7	FP	Mo	Zen	E	G-A	L-A	14	
15	Schacht... 66HA	152	247	152	247	S 36x6	DB10.50/24	Her RXC	6-4 1/2 x 5 1/2	528.0	51.2	115-2200	L	C	C	C	3 3/4	15	4	PC	Mo	Zen	G	A-L	A-L	15	
16	Service... 100ZB 5830	175	155	175	155	S 36x6	S 40x14	Bud BA6	6-4 1/2 x 5 1/2	410.9	40.8	83-2100	L	C	C	C	3 3/4	9 1/2	4	PC	Si	Str	V	Els	A-Bo	16	
17	Standard... 5-7	192	222	192	222	S 36x6	S 40x14	Con B5	6-4 1/2 x 5 1/2	425.3	36.1	110-1800	L	C	C	C	3 3/4	10 1/2	4	PC	On	Str	V	R-Bo	R-Bo	17	
18	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	18	
19	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	19	
20	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	20	
21	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	21	
22	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	22	
23	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	23	
24	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	24	
25	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	25	
26	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	26	
27	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	27	
28	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	28	
29	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	29	
30	Sterling FW140, FD140	192	222	192	222	S 36x6	DB10.50/24	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	C	C	3 3/4	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	30	
31	White... 642	198	215	28000	9409	S 36x6	S 40x12	Own GRB	6-4 1/2 x 5 1/2	326.3	28.9	94-1600	L	C	C	C	3 3/4	11 1/2	4	PC	On	Zen	V	Els	A-Bo	31	
32	Witt-Will... R55 5700	159	Op	27000	9500	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 5 1/2	427.5	45.9	100-2600	H	C	C	C	2 3/4	13 1/2	7	FP	On	No	Zen	M	D-R	D-R	32
33	Woods... 605W 190	Op	Op	36000	8700	B10.50/22	DB10.50/22	Her HXC	6-5 1/2 x 5 1/2	770	6																

Line Number	Clutch		Gear Set		No. of Forward Speeds	Aux. Locat. and Speeds	Universal Make and No.	Rear Axle		Front Axle	Make and Model	Brakes		Frame		Body Mounting Data		Springs		Line Number				
	Radiator Make	Type and Make	Make and Model	Location				Wheels Driven	Final Drive and Type	Drive and Torque		Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type	
1	Lon	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 10.0	95.0	Shu	T4IA	676	TD	Ros	8x3x4	P	162	99	36	40x3	54x4	1
2	Own	D.Ful	B-L	A	7	No	Spl 4	Tim	WF	R 7.33	46.3	Tim	26450-H	870	FD	Han	8x3x4	P	128	81	36	44x3	60x3 1/2	2
3	Own	dp.Lon	B-L 714	A	7	No	Spl 4	Tim	WF	R 6.46	41.5	Own AC	W84IA	194	21	Ros	8x3x4	P	132	92	37	44x3	60x4	3
4	Own	P.Own	Own AC	A	7	No	Spl 4	Own AC	CD	R 6.46	41.5	Own AC	OJXM	492	JX	Han	8x3x4	P	132	92	37	46x3 1/2	52x4	4
5	Own	P.Own	Own AC	A	7	No	Spl 4	Own AC	CD	R 6.46	41.5	Own AC	OJXM	194	21	Own	8x3x4	P	132	92	37	46x3 1/2	52x4	5
6	Own	P.Own	Own AC	A	7	No	Spl 4	Own AC	CD	R 6.46	41.5	Own AC	OJXM	194	21	Own	8x3x4	P	132	92	37	46x3 1/2	52x4	6
7	Own	P.Own	Own AC	A	7	No	Spl 4	Own AC	CD	R 6.46	41.5	Own AC	OJXM	194	21	Own	8x3x4	P	132	92	37	46x3 1/2	52x4	7
8	Own	P.Own	Own AC	A	7	No	Spl 4	Own AC	CD	R 6.46	41.5	Own AC	OJXM	194	21	Own	8x3x4	P	132	92	37	46x3 1/2	52x4	8
9	Mod	D.B-L	B-L 554	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	9
10	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	10
11	Mod	D.B-L	B-L 1714	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	11
12	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	12
13	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	13
14	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	14
15	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	15
16	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	16
17	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	17
18	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	18
19	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	19
20	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	20
21	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	21
22	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	22
23	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	23
24	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	24
25	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	25
26	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	26
27	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	27
28	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	28
29	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	29
30	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	30
31	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	31
32	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	32
33	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	33
34	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	34
35	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	35
36	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	36
37	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	37
38	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	38
39	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	39
40	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	40
41	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	41
42	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	42
43	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	43
44	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	44
45	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	45
46	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	46
47	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	47
48	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	48
49	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	49
50	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	50
51	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	51
52	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	52
53	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	53
54	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	54
55	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	55
56	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	56
57	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	57
58	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	58
59	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H	690	TD	Ros	8x3x4	P	168	113	34	39 1/2 x 2 1/2	56x3 1/2	59
60	Mod	D.B-L	B-L	A	7	No	Spl 4	Tim	WF	R 9.00	99.2	Tim	16710H											

KEY OF REFERENCES

GENERAL

Gross Vehicle Weight—Chassis weight, plus body and cab, plus pay load.
Chassis Price is for truck with standard wheelbase listed and with tires listed F.O.B. factory, unless otherwise specified.

b—Price of Mack AC 7-10 ton, \$4,950, tires, 8 36x5, DS 40x5; 11-14 ton, \$5,500, tires, 8 36x6, DS 40x6; 15 ton, \$6,000, tires 8 36x7, DS 40x7.
(T)—Day-Elder 75-1 1/2 ton. Same specifications except price—\$945, and larger tire size—B6.00/20 front and DB6.00/20 rear.

(U)—Gottfredson-Rear Axle Model B800 also provided with 2412 EA-Car.

(V)—Hug 87M has wheelbase of 120 in. CS7 has wheelbase of 146, 154, 171 and 181.

(V)—Chevrolet utility model with dual 30x5 rear tires lists at \$545.00.

(Z)—Larger engines and corresponding transmissions provided on all models of Corbitt trucks when type of service requires them.

TIRES

B—Balloons.
DB—Dual Balloons standard equipment.
P—High Pressure Pneumatics standard equipment.
DP—Dual High Pressure Pneumatics standard equipment.
S—Solids.
DS—Dual Solids.
°—Pneumatics furnished at extra cost.

ENGINE

Bud—Buda Company.
Con—Continental Motors Corp.
HaS—American Car & Fdy. Co.
Her—Hercules Motor Corp.
Lyc—Lycoming Motor Corp.
Wau—Waukesha Motor Co.
Wis—Wisconsin Motor Mfg. Co.

Valve Arrangement

H—In head.
L—"L" Head.
S—Sleeve.
T—"T" Head.

C—Chain.
G—Gear.

Camshaft Drive

Piston Material

A—Aluminum alloy.
B—Semi-steel.
C—Cast iron.
N—Nickel iron.
S—Aluminum alloy with strut.

Main Bearings

r—Rear main bearing.

Oiling System

CC—Pressure to main, connecting rod and camshaft bearings.
FP—Pressure to main, connecting rod, camshaft bearings and piston pins.
PC—Pressure to mains and connecting rod bearings.
PG—Pump, gravity and splash.
PS—Pressure with splash.
SP—Circulating with splash.

Governor

Bf—Bethlehem Fabricators, Inc.
Bu—Buda
Co—Continental.
Ha—Handy Governor Co.
HS—Amer. Car & Fdy. Co.
KP—Handy Governor Co.
Mo—Monarch.
No—Not supplied.
On—Own.
Op—Optional.
Pe—Pierce Governor Co.
Si—Simplex (Elsemann Magneto Corp.)
St—Sterling.
Wa—Waukesha.

Radiator

Bus—Bush Mfg. Co.
Chi—Chicago Mfg. Co.
Fed—Feddars Mfg. Co.
G&O—G & O Mfg. Co.
Har—Harrison Rad. Corp.
Hex—Hexcel Rad. Co.
Lon—Long Mfg. Company.
McC—McCord Rad. & Mfg. Co.
Mod—Modine Mfg. Co.
Per—Perflex Corp.
R—Rome-Turney Rad. Co.
You—Young Rad. Company.

FUEL SYSTEM

Carburetor Make

Car—Carter Carburetor Co.
Joh—Johnson.
Mar—Marvel Carburetor Co.
Sch—Wheeler Schebler Co.
Ste—Detroit Lubricator.
Str—Stromberg Motor Dev. Co.
Stw—Stewart.
Til—Tillotson Mfg. Co.
Zen—Zenith-Detroit Corp.

Fuel Feed

E—Electric Pump.
G—Gravity.
M—Mechanical Pump.
P—Pressure.
V—Vacuum.

ELECTRICAL SYSTEMS

A—Bo—Amer. Bosch Magneto Co.
R—Bo—Robert Bosch Magneto Co.
Apo—Apollo Magneto Corp.
D—R—Delco Remy Company.
Eis—Elsemann Magneto Corp.
L—N—Leece-Neville Co.
N—E—North East Elec. Co.
Spl—Splittorf Electrical Co.
1—Generator and Starter at extra cost.
2—Starter not supplied. Generator at extra cost.
3—Starter at extra cost.

CLUTCH

D—Multiple disk.
dp—Double Plate.
O—Plate in oil.
P—Single plate.

B&B—Borg & Beck Co.
B—L—Brown-Lipe Gear Co.
Cla—Clark Equipment Co.
Cov—Covert Gear Co.
D—G—Detroit Gear & Mach. Co.
Ful—Fuller & Sons Mfg. Co.
H—S—Merchant & Evans Co.
Jon—Jones Clutch & Gear Co.
Lon—Long Mfg. Company.
M—E—Merchant & Evans.
M—M—Mechanics Mach. Co.
Mun—Muncie Products Div. General Motors Corp.
Roc—Rockford Drill Machine Co.
W—G—Warner Gear Co.

GEARSET

B—L—Brown-Lipe Gear Co.
Cla—Clark Equipment Co.
Cov—Covert Gear Co.
D—G—Detroit Gear & Mach. Co.
Ful—Fuller & Sons Mfg. Co.
M—M—Mechanics Mach. Co.
Mun—Muncie Products Div. General Motors Corp.
W—G—Warner Gear Co.
War—Warner Corp.

A—Amidships.
J—Unit with jackshaft.
U—Unit with engine.

Auxiliary, Location

No—Not furnished.
Op—Optional at extra cost.
A—Amidships.
R—Rear of amidships main transmission.
U—Unit with engine.

UNIVERSAL JOINTS

Blo—Blood Bros. Mach. Co.
B—C—Blood and Cleveland.
Cle—Cleveland Steel Prod. Corp.
Har—Spicer Mfg. Co.
M—M—Mechanics Machine Co.
PeS—Peters and Spicer.
Pet—Peters.
P—S—Peters and Sneed.
S—C—Spicer and Cleveland.
Spi—Spicer Mfg. Co.
S—P—Superior Universal Products Co.
SpB—Spicer and Blood Bros.
SpP—Spicer and Plick.
S—T—Spicer & Thermoid.
U—M—Universal Machine Co.
U—P—Universal Products Co.

REAR AXLE

Cla—Clark Equip. Co.
Col—Columbia Axle Co.
Con—Continental Axle Co.
Eat—Eaton Axle Co.
Sal—Salsbury Axle Co.
Tim—Timken Det. Axle Co.
Wis—Wisconsin Axle Co.

Final Drive and Type

B—Bevel.
C—Chain.
D—Dead.
F—Full Floating.
H—Hypoid.
I—Internal Gear.
2—Double Reduction.
R—Relay—Pendulum Drive.
S—Spiral Bevel.
W—Worm.
w/2—Worm or Double Reduction Optional.
1/2—Semi-Floating.
3/4—Three-Quarter Floating.

Drive and Torque

A—Radius Rods and Torque Arm.
H—Hotchkiss.
R—Radius Rods.
T—Torque Arm.
U—Torque Tube.
O—Radius Rods Optional.

WHEELS DRIVEN

2—Forward pair of rear wheels.
4F—Front and forward pair of rear wheels.
4R—Four rear wheels.
6—Six wheels.

FRONT AXLE

Shu—Shuler Axle Co., Inc.
Cla—Clark Equipment Co.
Col—Columbia Axle Co.
Con—Continental Axle Co.
Eat—Eaton Axle Co.
Sal—Salsbury Axle Co.
She—Sheldon.
Tim—Timken Det. Axle Co.
Wis—Wisconsin Axle Co.

BRAKES—Service

B—Bendix.
BE—Bendix front, Eaton rear.
BO—Bendix front, Own rear.
C—Columbia.
K—Clark.
L—Lockheed.
LO—Lockheed front, Own rear.
O—Own.
OE—Own front, Eaton rear.
OW—Own front, Wisconsin rear.
S—Steeldraulic.
T—Timken.
W—Wisconsin.
Ws—Westinghouse.

Make

Location

2—Two Wheel.
4—Four Wheel.
6—Six Wheel.
2/4—Two wheel brakes effective on all four wheels through driveshaft.
F—Driveshaft effective on four wheels.
J—Jackshaft.
P—Propeller shaft.
P/4—Propeller shaft effective on four wheels.
r—Four rear wheels.

Type

I—Internal.
Y—Internal front and external rear.
X—External.

Method of Operation

A—Air.
D—Hydraulic and mechanical.
H—Hydraulic.
M—Mechanical.
V—Vacuum.

BRAKES—Hand Location

C—Center of double propeller shaft
2—Rear wheels.
4—Four wheels.
R—Worm or bevel gear shaft.
T—Transmission.
F—Driveshaft.

Type

D—Disk.
I—Internal.
X—External.
Y—Internal front and external rear.

STEERING GEAR Make

CAS—Columbus G. & P. Co.
Gem—Gemmer Mfg. Co.
Han—Hannum Mfg. Co.
Jac—Saginaw Steering Gear Div. General Motors Corp.
Lav—Hannum Mfg. Co.
Ros—Ross Gear & Tool Co.
Woh—Wohlrab Gear Co.

FRAME

C—Channel.
I—"I" Beam.
P—Channel reinforced with plate.
T—Slide rails tapered front and rear.

SPRINGS—Auxiliary Type

1/2—Semi-elliptic above or below main springs.
3/4—Quarter elliptic.
C—Coil spring.

(X) General Motors Trucks. Gross vehicle weight indicated for each model in table is the *Straight Rating* (combined weight of chassis, body, equipment and payload) for which chassis is designed and guaranteed to satisfactorily operate under average conditions. The size of the tires used does not affect this Straight Rating, but to secure maximum tire mileage it is suggested that the total gross weight be limited to a "recommended gross weight" for each tire equipment (type number) based on tire capacity. Chassis prices vary with wheelbase and tire combinations. The range of "recommended gross weights," type numbers and resulting payload range (assuming nominal body allowance) for each model follow.

Note: Models T-15 to T-60 inclusive, as well as Models TX and WX, are available for Export only as coach chassis.

MODEL	RANGE OF RECOMMENDED GROSS WEIGHTS (LBS.)	TYPE NUMBERS	RANGE OF PAYLOAD (TONS)
T-11	3800	1001	1/2
T-15	4500 to 6500	1501 to 1708	1 1/2-1 1/2
T-18	7500 to 8200	1801 to 1803	1 1/2-2
T-19	7500 to 10000	2201 to 2223	1 1/2-2 1/2
T-25	6800 to 9000	2501 to 2518	1 1/2-2
T-26	8500 to 11000	261-1 to 2618-18	2-3
T-30	10000 to 12500	3201 to 3215	2-3
T-31	11000 to 14000	311-1 to 315-9	2 1/2-4
TX-186 1/2	14000	Export Coach	.....
WX-185	14500	Export Coach	.....
T-42	12000 to 15000	4201 to 4212	2 1/2-4
T-44	12000 to 16000	4401 to 4412	3-4 1/2
T-45	13500 to 16000	451-1 to 455-10	3-4 1/2
WX-215	17000	Export Coach	.....
T-51	16500 to 19000	511-1 to 517-13	4-5 1/2
T-55	16500 to 19000	551-1 to 557-13	4-5 1/2
T-60	18500 to 22000	6201 to 6218	5-6 1/2
T-61	19500 to 22000	611-1 to 619-8	5-6 1/2
T-82	19000 to 24000	8201 to 8212	5-7
T-83	20000 to 24000	831-1 to 837-8	5-7
T-85	25000 to 30000	851-1 to 859-9	6-8
T-90	22000 to 28000	9001 to 9007	5 to 7 1/2
T-95	30000 to 40000	951-1 to 956-9	7-11
T-96	28000 to 34000	961-1 to 965-8	7-9